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19. ABSTRACT (Continue on reverse if necessary and identify by block number)

This report consolidates the Structured Analysis and Structured Design for the Logistic Support Analysis (LSA) Tasks. Included are the Data Flow Diagrams (DFDs) for LSA Subtask 402.2.1, "Impact of Fielding a New System on Existing Systems", and the corresponding descriptions of the processes, data flows, data stores, and external entities identified on each DFD. The DFDs are further developed into procedures which identifies how to use the data to carry out the processes and accomplish the LSA Subtask. Venture Evaluation Review Technique (VERT) Batch Input files are also provided to assist as tools, giving both technical and managerial aspects of a task.

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STRUCTURED ANALYSIS\DESIGN

LSA TASK 402
EARLY FIELDING ANALYSIS

SUBTASK 402.2.1
IMPACT OF FIELDING A NEW SYSTEM ON EXISTING SYSTEMS

APJ 966-256

APJ

MILITARY & SCIENTIFIC RESEARCH

AMERICAN POWER JET CO. RIDGEFIELD N.J.

APJ 966-256

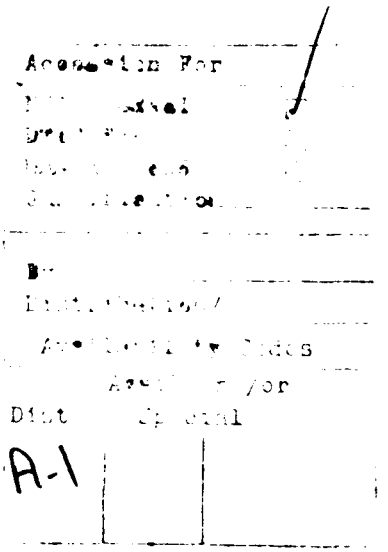
STRUCTURED ANALYSIS/DESIGN

LSA TASK 402

EARLY FIELDING ANALYSIS

LSA SUBTASK 402.2.1

IMPACT OF FIELDING A NEW SYSTEM ON EXISTING SYSTEMS



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for

HQ US AMCCOM

INTEGRATED LOGISTIC SUPPORT OFFICE
AMSMC-LSP
ROCK ISLAND, IL

by

AMERICAN POWER JET COMPANY

RIDGEFIELD, NJ — FALLS CHURCH, VA

WILLIAMSBURG, VA — ST. LOUIS, MO

January 1991

EXECUTIVE SUMMARY

LSA SUBTASK 402.2.1
IMPACT OF FIELDING A NEW SYSTEM ON EXISTING SYSTEMS

The American Power Jet Company (APJ) is under contract to the Army Armament Munitions and Chemical Command (AMCCOM) to provide "how to" procedures for selected ILS and LSA tasks. The results of this effort are a series of Structured System Analysis and Structured System Design reports.

The intent of this work is to be compatible with CALS, LOGPARS, and other similar efforts to enhance performance, training, and automation. Our basic structure facilitates the downstream application of Artificial Intelligence and streamlining of these critical functions.

STRUCTURED SYSTEM ANALYSIS

Excelerator, a Computer Aided Software Engineering (CASE) tool, was used to prepare the Structured System Analysis. Each LSA Task is modeled by a series of Data Flow Diagrams (DFDs), depicting activities and accompanying data flows needed to produce intermediate or final products. Complex activities are "broken down" or "exploded" into lower level data flow diagrams.

Each DFD can contain four types of objects:

- **Processes** or activities
- **Data Flows** - inputs to a process or data output generated from a process
- **Data Stores** - identifies sources for the data
- **External Entities** - indicates who to contact for guidance.

Each object is described either by developing detailed procedures or identifying its data content. The object descriptions are placed in a Data Dictionary which is built-up as the Data Flow Diagrams are expanded, detailed, and eventually completed.

STRUCTURED SYSTEM DESIGN

The Structured Design amplifies the processes and data flows developed in the Structured Analysis into procedures used to accomplish the LSA Tasks and Subtasks. The Analysis provides the method and the Design implements it.

In addition to the narrative portions of the Structured Design, "Input Screens" are developed for each process or set of processes. The charts structure and organize the data needed to perform a LSA task and make decisions on Weapon System supportability. By formalizing the data requirements in this manner, a standard set of output reports can be specified.

AUTOMATION

The Structured Design material can of course be used in a manual fashion. However, automation of the task achieves several objectives:

The analyst performing the LSA Task is taken through a series of automated steps leading to a successful result. More time is spent actually doing the work instead of determining what must be done next. Help is available at every step to guide the analyst through the task.

The information is organized so that productivity improves because more time is spent gathering, analyzing, and interpreting the data instead of tedious record keeping.

All data is structured and stored by the software so it can be easily retrieved, edited, and added to.

Output reports are standardized through a report generation facility using preprogrammed report formats. Efficiency improves since the analyst is relieved of the burden of writing and formatting reports. Decision makers receive reports in familiar formats so the most significant sections can be quickly found.

A large volume of data will be captured and stored over a period of time, creating a large "knowledge base". This knowledge base provides a body of procedures, sources, data, and lessons learned for an analyst to query and apply against a new or update analysis effort. This available information forms the of basis an Artificial Intelligence (AI) expert system.

Automation of selected LSA subtasks are being prototyped to demonstrate the principles involved and gain user experience. Although fully general, all prototypes are designed for ready development and adaptation to specific weapon systems.

LSA Subtask 402.2.1 Description

To place this LSA subtask in context, it is one of five subtasks of LSA Task 402 "Early Fielding Analysis". Input for this subtask comes from LSA Tasks 301, 303, and 401. The output identifies Logistic resourcing problems caused by the fielding of a new system. These results are fed to Subtask 402.2.5 for resolution.

Specifically, LSA Subtask 402.2.1 assesses the impact on existing systems (weapon, supply, maintenance, transportation) from introduction of the new system/equipment. It examines the impact on depot workload and scheduling, provisioning and inventory factors, automatic test equipment availability and capability, manpower and personnel factors, training programs and requirements, POL requirements, and transportation systems. In addition, it identifies any changes required to support existing weapon systems due to new system/equipment requirements.

FOREWORD

APJ, under contract to HQs, AMCCOM, has initiated the automation of the LSA Tasks (MIL-STD-1388-1) and the assessment of the ILS elements (AR 700-127). A major goal is to unify military and contractor approach to the performance of ILS and LSA.

Detailed to meet all requirements of ILS and LSA, the automated process will continue to provide the flexibility in selecting tasks and elements to be addressed at each life cycle stage. A major advantage of this approach is to insure that the application of each task element is consistent with prescribed Army policies and procedures.

This report consolidates the Structured Analysis and Structured Design under one cover for the respective LSA Task. Structured Analysis provides a logical model of the method to perform an LSA Task. This logical model facilitates the development of a Structured Design that provides the detailed procedures to perform the analysis. Both the logical model and detailed procedures are used to develop the application software programs which will be provided to Government and contractor personnel to assist the performance of the LSA Task.

Included in this report are the Data Flow Diagrams (DFDs) for LSA Subtask 402.2.1, "New System/Equipment Impact" and the corresponding descriptions of the processes, data flows, data stores, and external entities identified on each DFD (Annex B). In addition, the DFDs are further developed into step-by-step procedures (Annex C) which identify how to use the data to carry out the processes which ultimately lead to accomplishing the LSA Subtask.

To assist managers in planning and controlling this task, Venture Evaluation Review Technique (VERT) Batch Input files are provided (Annex D). These VERT tools provide government agencies with complete packages to give contractors that cover both technical and managerial aspects of a task. This approach establishes a standardized form of communication and management between contractors performing the task and government personnel reviewing the task.

To view this work in context, this report also presents a brief overview of Structured Analysis and its place in the overall system development process. Additionally, Annex E provides a brief working description of Structured Systems Analysis fundamentals. The overview and certain portions of the introductory text are repeated verbatim in every report in this series so that each report is free standing.

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LIST OF FIGURES

INTRODUCTION

PURPOSE

The purpose of this report series is to present the results of the APJ Structured Analysis/Design under Contract DAAA21-86-D-0025 for coordination with the AMCCOM Program Manager prior to in-depth programming of ILS and LSA functions and processes. LSA Task 402 "Early Fielding Analysis", (LSA Subtask 402.2.1" New System/Equipment Impact") is addressed in this report.

BACKGROUND

The Department of the Army has a requirement for management control over contractor and Government agency response to the requirements of AR 700-127, "Integrated Logistic Support", and MIL-STD-1388-1, "Logistic Support Analysis". HQs AMCCOM has initiated action to structure each of the LSA tasks, the assessment of each ILS element, the form of the results, and the detailed processes to insure consistency with current Army policies, procedures, and techniques.

This approach (undertaken by AMCCOM and APJ) will insure uniformity in efforts and products, reproducibility of analyses, and a well-defined structure which can be coordinated among all participants in the logistic process to arrive at common understanding and procedures.

SCOPE

This report summarizes the results of the Structured Analysis of the identification of LSA Task 402 "Early Fielding Analysis", LSA Subtask 402.2.1, "New System/Equipment Impact", and presents the associated Data Flow Diagrams (DFDs) developed from the Structured Analysis and the corresponding procedures developed in the Structured Design. The portions of the Data Dictionary relating to the DFDs for this LSA Subtask includes the labels, names, descriptions, processes, data flows, data stores, and external entities. (The Data Dictionary is a "living document" that evolves through the analysis and design process).

The Data Dictionaries developed for each of the individual LSA Subtasks are integrated together into a Master Data Dictionary. Integration of the individual Data Dictionary involves the combination of similar Data Flows, Data Stores, and External Entities. The resulting Master Data Dictionary may well contain some minor differences from the definitions that appear in this report. All processes, and of course, the content of the structured design will remain identical.

The Structured Design portion of this report develops the processes and data flows developed in the DFDs into procedures which are used to accomplish the LSA Tasks. The DFDs provide the method and the Design implements it, by formulating a guide for programmers to write software applications.

This report presents a brief overview of Structured Analysis and its place in the overall systems design process to assist the reader who may not be fully briefed on the symbols and conventions used. It is supported by Annex E, which defines each element in the Structured Analysis.

LSA SUBTASK 402.2.1 - Description

Assess the impact on existing systems (weapon, supply, maintenance, transportation) from introduction of the new system/equipment. This assessment shall examine impacts on depot workload and scheduling, provisioning and inventory factors, automatic test equipment availability and capability, manpower and personnel factors, training programs and requirements, POL requirements, and transportation systems, and shall identify any changes required to support existing weapon systems due to new system/equipment requirements.

The LSA Task Description with associated task inputs and outputs is extracted from MIL-STD-1388-1A and is included as Annex A.

APPROACH

The APJ approach to Structured Analysis and Structured Design of an LSA Subtask is:

1. Scope the Subtask defined in MIL-STD-1388-1A with the overall task and determine its relationship with other LSA Tasks.

2. Review all pertinent documentation (e.g., AR's, MIL-STDs, etc.) applicable to the specific topic.

3. Prepare the Top Level DFDs in context of the Subtask, and develop lower level DFDs to further quantify any complex process identified in the top level DFD.

4. Complete the Data Dictionary portion of the Analysis by describing all processes, data flows, data stores and external entities.

5. Apply staff experience in logistic support analysis to assure that the topic has been exhaustively addressed.

6. From the completed DFDs prepare the step by step procedures that form the structured design.

7. Review Data Item Description and other applicable material to develop output reports.

8. If required revise DFDs and Data Dictionary based on preparation of detailed procedures.

9. Validate results in discussions with Army activities and personnel directly involved in the applicable or related LSA tasks.

NOTE: Structured Analysis and preparation of Data Flow Diagrams (DFDs) was further assisted by the application of Structured Analysis software. Licensed by Index Technology Corporation, Excelerator provides for automated tracking of names, labels, descriptions, multiple levels of detail in the data flow diagrams, and industry standards in symbols and diagramming practices.

LSA SUBTASK 402.2.1 - New System/Equipment Impact

The Data Flow Diagram is a tool that shows the flow of data, (i.e., data flows from sources) and is processed by activities to produce intermediate or final products.

The DFD provides a useful and meaningful partitioning of a system from the viewpoint of identification and separation of all functions, actions, or processes so that each can be introduced, changed, added, or deleted with minimal disruption of the overall program, i.e., it emphasizes the underlying concept of modularity and identifiable transformations of data into actionable products.

A series of one (1) DFD has been developed to structure the LSA subtask relative to operations and other support functions:

1. 402.2.1 New System/Equipment Impact

Four standard symbols are used in the drawing of a DFD (see Annex E - Figure 1).

A copy of each DFD is presented in Annex B, accompanied by the Data Dictionary process elements. Each entry made in the DFDs has a corresponding entry in the Data Dictionary.

This presents only those Data Dictionary entries necessary for the coordination of the overall concept and details of the processes. To facilitate review of the diagrams, data flow identifications, process, an data store descriptions are provided.

As noted above, they will continue to evolve and be expanded in the System Design phase.

VERT DIAGRAMS

The Venture Evaluation Review Technique (VERT) was developed as a network analysis technique to facilitate management decision making. It allows systematic planning and control of programs and enables managers to find solutions to real life managerial problems. The VERT Diagrams and Input Files for this task can be found in Annex D. In order to understand how these Input Files were developed, a brief discussion of the methodology used is provided. The same explanation is repeated verbatim in every report.

ANNEX A

—

LSA TASK 402
EARLY FIELDING ANALYSIS

ANNEX A
LSA TASK 402
EARLY FIELDING ANALYSIS 1/

402.1 PURPOSE.

To assess the impact of the introduction of the new system/equipment on existing systems, identify sources of manpower and personnel to meet the requirements of the new system/equipment, determine the impact of failure to obtain the necessary logistic support resources for the new system/ equipment, and determine essential logistic support resource requirements for a combat environment.

402.2. TASK DESCRIPTION

402.2.1 Assess the impact on existing systems (weapon, supply, maintenance, transportation) from introduction of the new system/equipment. This assessment shall examine impacts on depot workload and scheduling, provisioning and inventory factors, automatic test equipment availability and capability, manpower and personnel factors, training programs and requirements, POL requirements, and transportation systems, and shall identify any changes required to support existing weapon systems due to new system equipment requirements.

402.3 TASK INPUT

402.3.1 Delivery identification of any data item required.

402.3.2 Information available from the requiring authority relative to:

a. Existing and planned sources for manpower and personnel skills.
b. Capabilities and requirements of existing and planned systems.
c. Projected threats, combat scenarios, system/equipment vulnerability, projected attrition rates, battle damage repair capabilities, and essentialities in combat.

402.3.3 Logistic support resource requirements for the new system/equipment from Task 401.

402.3.4 Evaluation and tradeoff results from Task 303.

402.4 TASK OUTPUT

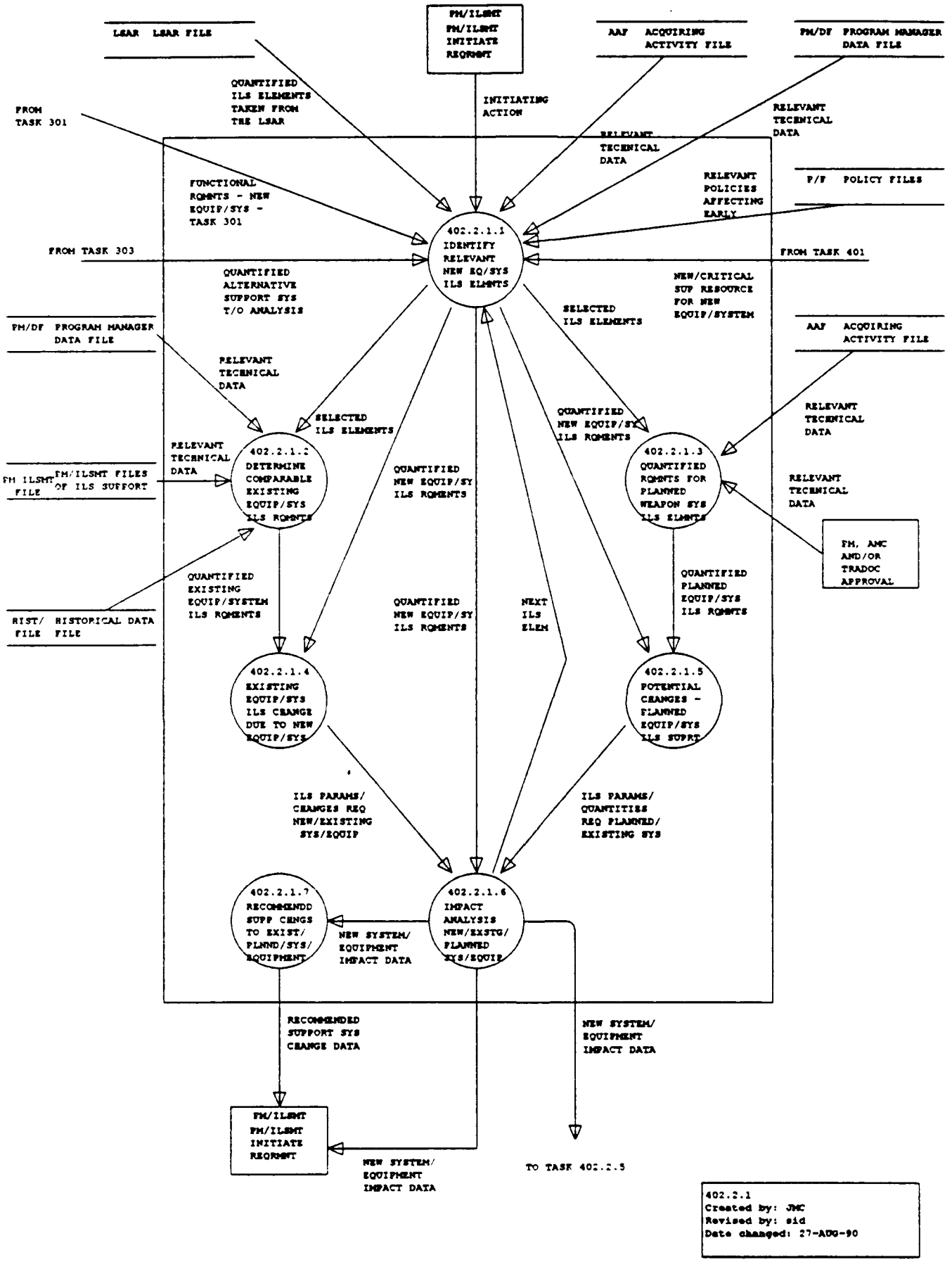
402.4.1 Impact from the introduction of the new system/ equipment on current and planned weapon and support systems.

1/ Abstracted verbatim from MIL-STD-1388-1A, April 11, 1983, Page 45.

ANNEX B

—

SUBTASK 402.2.1
NEW SYSTEM/EQUIPMENT IMPACT,
DATA FLOW DIAGRAMS AND PROCESS DATA DICTIONARY


LSAR LSAR FILE
PM/ILSMT
PM/ILSMT
INITIATE
REQRMNT
AAF ACQUIRING
ACTIVITY FILE
PM/DF PROGRAM MANAGER
DATA FILE
QUANTIFIED
ILS ELEMENTS
TAKEN FROM
THE LSAR
INITIATING
ACTION
FROM
TASK 301
RELEVANT
TECHNICAL
DATA
RELEVANT
TECHNICAL
DATA
FUNCTIONAL
RQMNTS - NEW
EQUIP/SYS -
TASK 301
RELEVANT
POLICIES
AFFECTING
EARLY
P/F POLICY FILES
402.2.1.1
IDENTIFY
RELEVANT
NEW EQ/SYS
ILS ELMNTS
FROM TASK 303
FROM TASK 401
QUANTIFIED
ALTERNATIVE
SUPPORT SYS
T/O ANALYSIS
NEW/CRITICAL
SUP RESOURCE
FOR NEW
EQUIP/SYSTEM
SELECTED
ILS ELEMENTS
PM/DF PROGRAM MANAGER
DATA FILE
AAF ACQUIRING
ACTIVITY FILE
RELEVANT
TECHNICAL
DATA
SELECTED
ILS ELEMENTS
QUANTIFIED
NEW EQUIP/SY
ILS RQMNTS
RELEVANT
TECHNICAL
DATA
RELEVANT
TECHNICAL
DATA
402.2.1.2
DETERMINE
COMPARABLE
EXISTING
EQUIP/SYS
ILS RQMNTS
402.2.1.3
QUANTIFIED
RQMNTS FOR
PLANNED
WEAPON SYS
ILS ELMNTS
PM ILSMT
FILE
PM/ILSMT FILES
OF ILS SUPPORT
QUANTIFIED
NEW EQUIP/SY
ILS RQMNTS
RELEVANT
TECHNICAL
DATA
PM, AMC
AND/OR
TRADOC
APPROVAL
QUANTIFIED
EXISTING
EQUIP/SYSTEM
ILS RQMNTS
QUANTIFIED
NEW EQUIP/SY
ILS RQMNTS
NEXT
ILS
ELEM
QUANTIFIED
PLANNED
EQUIP/SYS
ILS RQMNTS
HIST/
FILE
HISTORICAL DATA
FILE
402.2.1.4
EXISTING
EQUIP/SYS
ILS CHANGE
DUE TO NEW
EQUIP/SYS
402.2.1.5
POTENTIAL
CHANGES -
PLANNED
EQUIP/SYS
ILS SUPRT
ILS PARAMS/
CHANGES REQ
NEW/EXISTING
SYS/EQUIP
ILS PARAMS/
QUANTITIES
REQ PLANNED/
EXISTING SYS
402.2.1.7
RECOMMENDD
SUPP CHNGS
TO EXIST/
PLNND/SYS/
EQUIPMENT
402.2.1.6
IMPACT
ANALYSIS
NEW/EXSTG/
PLANNED
SYS/EQUIP
NEW SYSTEM/
EQUIPMENT
IMPACT DATA
RECOMMENDED
SUPPORT SYS
CHANGE DATA
NEW SYSTEM/
EQUIPMENT
IMPACT DATA
PM/ILSMT
PM/ILSMT
INITIATE
REQRMNT
NEW SYSTEM/
EQUIPMENT
IMPACT DATA
TO TASK 402.2.5
402.2.1
Created by: JMC
Revised by: sid
Date changed: 27-AUG-90

Name	Label	Description
402.2.1.1	IDENTIFY RELEVANT NEW EQ/SYS ILS ELMNTS	PURPOSE: PRINCIPAL GOAL OF THESE PROCESSES IS TO IDENTIFY AND QUANTIFIY THOSE ILS ELEMENTS RELEVANT TO THE NEW EQUIPMENT/SYSTEM WHICH MAY INFLUENCE OR IMPACT THE EXISTING EQUIPMENT/SYSTEMS OR THOSE WHICH ARE PROGRAMMED OR PLANNED FOR FUTURE CONSIDERATION. THE ILS ELEMENTS TO BE CONSIDERED WILL INCLUDE AS A MINIMUM: 1. DEPOT WORKLOAD & SCHEDULING 2. PROVISIONING & POL REQUIREMENTS 3. ATE AVAILABILITY & CAPABILITY 4. MANPOWER & PERSONNEL 5. TRAINING PROGRAMS & REQUIREMENTS 6. INVENTORY FACTORS 7. TRANSPORTATION SYSTEMS SOURCE: MAJOR SOURCE OF INFORMATION WOULD BE THE SUPPORT REQUIREMENTS ANALYSES FROM TASK 303 AND THE TASK ANALYSES FROM TASK 401.
402.2.1.2	DETERMINE COMPARABLE EXISTING EQUIP/SYS ILS RQMNTS	PURPOSE: QUANTIFY THE NEW AND/OR CRITICAL SUPPORT REQUIREMENTS FOR EACH OF THE SELECTED ILS ELEMENTS FOR EXISTING WEAPON SYSTEMS WHICH ARE OR MAY BE INFLUENCED BY THE INTRODUCTION OF THE NEW EQUIPMENT/SYSTEM. SOURCE: ILS SUPPORT REQUIREMENTS FOR EXISTING WEAPON SYSTEMS MAY BE DEVELOPED FROM THE RESPECTIVE PROGRAM MANAGER DATA FILES OR FROM HISTORICAL FILES WHICH ADDRESS THE ILS ELEMENTS WITHIN THE SAME ENVIRONMENT TO WHICH THE NEW EQUIPMENT/SYSTEM IS TO BE EXPOSED.
402.2.1.3	QUANTIFIED RQMNTS FOR PLANNED WEAPON SYS ILS ELMNTS	PURPOSE: QUANTIFY THOSE NEW AND/OR CRITICAL SUPPORT REQUIREMENTS FOR THE SELECTED ILS ELEMENT ADDRESSED IN TASK 402.2.1.1 IN TERMS OF THEIR POTENTIAL EFFECT ON PLANNED WEAPONS SYSTEMS. SOURCE: TASK 401 AND PM/AMC/TRADOC PROJECT OFFICES
402.2.1.4	EXISTING EQUIP/SYS ILS CHANGE DUE TO NEW EQUIP/SYS	PURPOSE: COMPARATIVE ANALYSIS TO DETERMINE THOSE CHANGES WHICH WOULD BE REQUIRED IN THE SUPPORT OF EXISTING WEAPON SYSTEMS DUE TO THE NEW AND/OR CRITICAL ILS REQUIREMENTS OF THE NEW EQUIPMENT/SYSTEM. ALTERNATIVELY, AN ANALYSIS TO DETERMINE CHANGES REQUIRED OF THE NEW EQUIPMENT/SYSTEM SHOULD NO CHANGES BE MADE TO THE EXISTING SUPPORT SYSTEM. THE ANALYSIS MUST ADDRESS EACH OF THE SEVEN ILS ELEMENTS SET FORTH IN TASK 402.2.1.1 ABOVE: 1. DEPOT WORKLOAD AND SCHEDULING 2. PROVISIONING & POL DATA 3. ATE AVAILABILITY & CAPABILITY 4. MANPOWER & PERSONNEL DATA 5. TRAINING PROGRAMS & REQUIREMENTS 6. INVENTORY FACTORS 7. TRANSPORTATION SYSTEMS DATA ADEQUATE DETAIL SHOULD BE DEVELOPED IN EACH ANALYSIS TO PROVIDE INPUTS TO THE IMPACT EVALUATIONS TO BE PERFORMED IN TASK 402.2.1.6 BELOW.

	Name	Label	Description
	402.2.1.5	POTENTIAL CHANGES - PLANNED EQUIP/SYS ILS SUPRT	PURPOSE: IDENTIFICATION OF POTENTIAL CHANGES TO PLANNED EQUIPMENT/ SYSTEMS AND/OR THEIR SUPPORT BECAUSE OF NEW AND/OR CRITICAL ILS SUPPORT REQUIREMENTS IMPOSED BY THE NEW EQUIPMENT/SYSTEMS UNDER CONSIDERATION. THIS ANALYSIS/EVALUATION SHOULD ADDRESS ALL SEVEN OF THE BASIC ILS ELEMENTS SET FORTH IN TASK 402.2.1.1 AND 402.2.1.3 ABOVE: 1. DEPOT WORKLOAD AND SCHEDULING 2. PROVISIONING & POL 3. ATE AVAILABILITY AND CAPABILITY 4. MANPOWER & PERSONNEL DATA 5. TRAINING PROGRAMS AND REQUIRMENTS 6. INVENTORY FACTORS 7. TRANSPORTATION SYSTEMS/DATA THE RESULTS SHOULD BE IN ADEQUATE DETAIL TO PROVIDE INPUT TO AN IMPACT ANALYSIS IN TASK 402.2.1.6 BELOW.
	402.2.1.6	IMPACT ANALYSIS NEW/EXSTG/ PLANNED SYS/EQUIP	PURPOSE: IN TASKS 402.2.1.3, 402.2.1.4, AND 402.2.1.5 ABOVE, THE NEW AND/OR CRITICAL REQUIREMENTS FOR THE NEW EQUIPMENT/SYSTEM ARE MATCHED AGAINST THE EXISTING AND PLANNED SUPPORT SYSTEMS TO IDENTIFY THE MAJOR DIFFERENCES IN EACH OF THE SEVEN ILS ELEMENTS ADDRESSED IN TASK 402.2.1.1 ABOVE. THE MAJOR OBJECTIVE OF THIS TASK IS TO PERFORM AN IMPACT ANALYSIS ON THE THREE ALTERNATIVES: EXISTING EQUIPMENT/SYSTEMS VS THE PROPOSED NEW EQUIPMENT/SYSTEM VS THOSE SUPPORT SYSTEMS WHICH ARE ALREADY PLANNED FOR THE FUTURE. THE RESULTS SHOULD ADDRESS THE SPECIFIC QUANTIFIED DIFFERENCES IN THE SUPPORT SYSTEMS FOR THE NEW EQUIPMENT/SYSTEM VS THE EXISTING AND PLANNED SUPPORT SYSTEMS AND AN ESTIMATE OF THEIR EFFECT IN TERMS OF COST AND RESPONSIVENESS IN MEETING THE SHORT RANGE AS WELL AS THE LIFE CYCLE SUPPORT REQUIREMENTS OF THE RESPECTIVE EQUIPMENT/ SYSTEMS.
	402.2.1.7	RECOMMENDD SUPP CHNGS TO EXIST/ PLNND/SYS/ EQUIPMENT	PURPOSE: TO PROVIDE RECOMMENDATIONS FOR POSSIBLE INTEGRATION OF NEW SYSTEM/ EQUIPMENT SUPPORT REQUIREMENTS WITHIN EXISTING SYSTEM/EQUIPMENT AND/OR PLANNED WEAPON SYSTEM SUPPORT SYSTEMS.

Name	Label	Description
ALT/SUP/SYS TRADEOFF	QUANTIFIED ALTERNATIVE SUPPORT SYS T/O ANALYSIS RESULTS	FROM TASK 303, THE QUANTIFIED ALTERNATIVE SUPPORT SYSTEMS TRADE-OFF ANALYSIS RESULTS AS APPLICABLE TO THE NEW EQUIPMENT/SYSTEM ILS REQUIREMENTS. THESE DATA SHOULD ADDRESS ALL ASPECTS OF THE SUPPORT SYSTEM ANALYSED IN EACH SUBTASK UNDER TASK 303
FUNCT/RQMNTS	FUNCTIONAL RQMNTS - NEW EQUIP/SYS - TASK 301 RESULTS	TOTAL ANALYSES RESULTS FOR THE VARIOUS SUBTASK OF TASK 301. THESE RESULTS WILL INCLUDE: UNIQUE FUNCTIONAL REQUIREMENTS RISKS IN SATISFYING UNIQUE FUCNTIONAL REQUIREMENTS OPERATIONS AND MAINTENANCE TASKS FMECA RESULTS RCM ANALYSIS RESULTS
ILS/CHGS/NEW/EXIST	ILS PARAMS/ CHANGES REQ NEW/EXISTING SYS/EQUIP	THIS DATA FLOW CARRIES THE PARAMS AND QUANTITIES CHANGES REQUIRED FOR THE NEW SYSTEM/EQUIPMENT THAT ARE NOT INDICATED AS SUFFICIENT OR AVAILABLE IN THE EXISTING SYSTEM/EQUIPMENT.
ILS/CHNGS/PLANNED/NE	ILS PARAMS/ QUANTITIES REQ PLANNED/ EXISTING SYS /EQUIP.	THIS DATA FLOW CARRIES THE PARAMS AND QUANTITY CHANGES REQUIRED FOR THE NEW SYSTEM/EQUIPMENT THAT ARE INDICATED AS INSUFFICIENT OR UNAVAILABLE FROM THE EXISTING SYSTEM/EQUIPMENT FUTURE PLANS.
INIT/ACT	INITIATING ACTION	PURPOSE: THE REQUIRED ACTIONS OF THOSE (IF MORE THAN ONE) ACTIVITIES NECESSARY TO ACTUATE AN ILS ELEMENT ASSESSMENT FOR A SYSTEM AND/OR EQUIPMENT WHICH PROVIDES THE FORMAL AUTHORIZATION FOR THE PERFORMANCE OF AN ILS EFFORT. THESE INITIATING ACTIONS ARE NORMALLY PERFORMED BY THE ILSMT AND/OR THE PROGRAM MANAGER. WILL INCLUDE DATA IDENTIFYING THE NEED FOR ASSESSIN AN ALTERNATIVE SYSTEM/EQUIPMENT AS APPLICABLE. THIS NEED MAY BE BASED ON AN EVALUATION OF THE EXISTING REQUIREMENTS ON THE BASELINE SYSTEM/EQUIPMENT. THIS DATA MAY: 1. ESTABLISH MISSION PROFILE 2. IDENTIFY THE RESOURCES THAT EXIST AND/OR MUST BE DEVELOPED 3. ESTABLISH PRIORITIES SOURCE OF DATA: PROGRAM MANAGER OR ILSMT
LSAR ILS INPUTS	QUANTIFIED ILS ELEMENTS TAKEN FROM THE LSAR	THE QUANTIFIED ILS ELEMENTS TAKEN FROM THE LSAR APPLICABLE TO THE NEW EQUIPMENT/SYSTEM. THESE QUANTIFICATIONS WILL BE USED IN TASKS 402.2.1.2 AND 402.2.1.3 TO COMPARE TO THE REQUIREMENTS FOR THE EXISTING AND PLANNED WEAPONS SYSTEM TO ESTABLISH THE IMPACT OF THE NEW EQUIPMENT/SYSTEM ILS SUPPORT ON THE OVERALL LIFE CYCLE SUPPORT OF OTHER SYSTEMS
NEW SYS/EQUIP IMPACT	NEW SYSTEM/ EQUIPMENT IMPACT DATA	DOCUMENTED RESULTS OF NEW SYSTEM/EQUIPMENT IMPACT ON EXISTING SYSTEM/EQUIPMENT AND ON PLANNED WEAPON SYSTEMS.

Name	Label	Description
NEW/CRIT/SUP/NEW/EQU	NEW/CRITICAL SUP RESOURCE FOR NEW EQUIP/SYSTEM	NEW AND/OR CRITICAL SUPPORT RESOURCES REQUIRED FOR THE NEW EQUIPMENT/ SYSTEM WHICH HAVE BEEN IDENTIFIED IN TASK 401
NEXT/ILS/ELEM	NEXT ILS ELEM	THE NEXT ONE OF THE SEVEN (7) ILS ELEMENTS TO BE SELECTED IN THE ITERATIVE PROCESS FOR ANALYSIS AND EVALUATION THROUGH THE COMPLETE DATA FLOW DIAGRAM OF THIS TASK. THE ILS ELEMENTS CONSIST OF THE BASIC SEVEN ELEMENTS IDENTIFIED IN TASK 402.2.1.1
QUAN/EXIST/ILS/RQMNT	QUANTIFIED EXISTING EQUIP/SYSTEM ILS RQMENTS	THE QUANTIFIED REQUIREMENTS FOR EACH OF THE ILS ELEMENTS ANALYSED IN TASK 402.2.1.2 AS THEY APPLY TO THE EXISTING EQUIPMENT/SYSTEMS.
QUANT/NEW/EQUIP/ILS/	QUANTIFIED NEW EQUIP/SY ILS RQMENTS	QUANTIFIED REQUIREMENTS FOR EACH OF THE PERTINENT ILS ELEMENTS APPLICABLE TO THE NEW EQUIPMENT/SYSTEM
QUANT/PLND/EQUIP/ILS	QUANTIFIED PLANNED EQUIP/SYS ILS RQMNTS	THE QUANTIFIED ILS SUPPORT REQUIREMENTS FOR EACH OF THE ILS ELEMENTS ANALYSED IN TASK 402.2.1.3 ABOVE AS THEY APPLY TO THE PLANNED EQUIPMENT/SYSTEMS WHICH MAY INTERFACE THE NEW EQUIPMENT/SYSTEMS.
REC/SUPP/SYS/CHG/DTA	RECOMMENDED SUPPORT SYS CHANGE DATA	RECOMMENDED CHANGES, THAT HAVE BEEN QUANTIFIED TO EXISTING SYSTEM/EQUIPMENT AND PLANNED WEAPONS SYSTEMS SUPPORT CONCEPTS UTILIZING THE NEW SYSTEM/EQUIPMENT NEW SUPPORT ITEMS AND TECHNOLOGIES AS A BASE.
REL/POLICIES	RELEVANT POLICIES AFFECTING EARLY FIELDING	THOSE EXISTING DEPARTMENT OF ARMY OR DEPARTMENT OF DEFENCE POLICIES, PROCEDURES, DIRECTIVES, REGULATIONS OR INSTRUCTIONS WHICH ARE APPLICABLE TO THE SUPPORT ASPECTS OF EARLY FIELDING OF THE SUBJECT NEW EQUIPMENT/SYSTEM.
REL/TECH/DTA	RELEVANT TECHNICAL DATA	THIS DATA FLOW CARRIES TECHNICAL DATA RELAVENT TO THE ENTITY (PROCESS, DATA STORE, EXTERNAL ENTITY) FROM OR TO WHICH IT FLOWS. TO DETERMINE EXACTLY WHAT THE DATA IS, REVIEW THE ENTITIES THAT IT CONNECTS.
SEL/ILS/ELE	SELECTED ILS ELEMENTS	PURPOSE: INDICATE SELECTED ILS ELEMENTS APPLICABLE TO THE NEW EQUIP/SYSTEM WHICH MAY IMPACT EXISTING EQUIPMENT/SYSTEMS. THESE ILS ELEMENTS WILL CONSTITUTE THE BASIS FOR ESTABLISHING RECOMMENDATIONS FOR SUPPORT CHANGES TO EITHER THE EXISTING SUPPORT SYSTEM OR TO THE ILS REQUIREMENTS FOR THE NEW EQUIPMENT/SYSTEM.

	Name	Label	Description
	AAF	ACQUIRING ACTIVITY FILE	CONTAINS THOSE RECORDS, DOCUMENTS, DECISION PAPERS, SCHEDULES THAT WERE PREPARED AS PART OF THE ACQUISITION INITIATION, JUSTIFICATION, AND PLANNING PRIOR TO THE ASSIGNMENT OF A PROGRAM MANAGER. THE ITEMS IN THIS DATA STORE INCLUDE: A. REQUIRED OPERATIONAL CHARACTERISTICS B. O&O PLAN C. DESIRED R&M PARAMETERS D. THREAT ANALYSIS DATA E. READINESS OBJECTIVES DATA F. FUNTIONAL REQUIREMENTS DATA G. PROJECTED SCHEDULE DATA H. LOGISTICS RESOURCES DATA I. TOA J. TOD K. COST & OPERATIONAL EFFECTIVENESS ANALYSIS (COEA) DATA L. PROJECTED COST DATA M. JUSTIFICATION OF MAJOR SYSTEM NEW START (JMSNS) DATA N. DESIGN SPECIFICATIONS O. REQUIRED OPERATIONAL CAPABILITY (IF PREPARED PRIOR TO ASSIGNMENT OF PROGRAM MANAGER - ELSE FOUND IN PM FILES)
	HIST/FILE	HISTORICAL DATA FILE	CONTAINS DATA PREVIOUSLY ACQUIRED ON THE ITEM UNDER INVESTIGATION OR SOME SIMILAR SYSTEM AND MAY ADDRESS THE FOLLOWING AREAS (TO BE TREATED SEPARATELY): 1. RELIABILITY DATA 2. FAILURE RATE DATA 3. SPARES AND SPARE FUNDING DATA THE AVAILABILITY, ACCURACY, AND RELEVANCY OF EXPERIENCE OF HISTORICAL DATABASES FROM SIMILAR EXISTING SYSTEMS (OR LOGISTICALY EQUIVALENT SYSTEMS) IS CRUCIAL FOR ACCOMPLISHMENT OF THE LSA TASK IN QUESTION.
	LSAR	LSAR FILE	LOGISTCS SUPPORT ANALYSIS RECORD FILE. PURPOSE OF DATA STORE: THIS FILE OR RECORDS HOLDING AREA CONTAINS LSA TASK REPORTS OR THEIR EQUIVALENT; LSAR MASTER RECORD SHEET INFORMATION; LSAR REPORTS WHEN SYSTEM IS AUTOMATED. IT CONTAINS LOGISTICS DATA WHICH CAN BE USED TO ASSESS VARIOUS ILS ELEMENTS. MIL-STD 1388-1A AND 1388-2A SHOULD BE LOOKED AT FOR COMPLETE OUTPUTS AVAILABLE

	Name	Label	Description
	P/F	POLICY FILES	CONTAINS THOSE MILITARY PUBLICATIONS, DECISION PAPERS, MISSIONS & FUNCTIONS, etc, WHICH ARE NEEDED TO ESTABLISH THE LOGISTICAL SUPPORT AND REVIEW REQUIREMENTS OF THE ITEM/EQUIPMENT DEVELOPMENT PROGRAM. THIS DATA STORE INCLUDES: 1. AR 12-16, "MUTUAL LOGISTICS SUPPORT BETWEEN THE U.S. AND OTHER NORTH ATLANTIC TREATY ORGANIZATION FORCES" 1a. AR 70-1, "SYSTEMS ACQUISITION POLICY AND PROCEDURES" 1b. AR 70-2, "RESEARCH, DEVELOPMENT, & ACQUISITION MATERIEL STATUS RECORDING" 1c. AR 70-10, "R&D - TEST & EVALUATION DURING DEVELOPMENT AND ACQUISITION OF MATERIEL" 1d. "AR 570-9, "MANPOWER AND EQUIPMENT CONTROL - HOST NATION SUPPORT" 2. AR 700-9, "POLICIES OF THE ARMY LOGISTIC SYSTEM" 3. AR 700-82, "JOINT REGULATION GOVERNING THE USE AND APPLICATION OF UNIFORM SOURCE MAINTENANCE AND RECOVERABILITY CODES" 4. AR 700-127, "INTEGRATED LOGISTICS SUPPPORT" 5. AR 725-50, "REQUISITIONING, RECEIPT AND ISSUE SYSTEM" 6. AR 750-1, "MAINTENANCE OF SUPPLIES & EQUIPMENT - ARMY MATERIEL MAINTENANCE CONCEPTS & POLICIES" 7. AMC-R-700-27, "LEVEL OF REPAIR ANALYSIS (LORA) PROGRAM" 8. AMC-R-750-10, "DEPOT MAINTENANCE INTERSERVICE" 9. DA PAM 5-25, "ARMY MODERNIZATION INFORMATION MEMORANDUM" 10. DA PAM 700-28, "INTEGRATED LOGISTIC SUPPORT PROGRAM ASSESSMENT ISSUES AND CRITERIA" 11. DA PAM 700-50, "INTEGRATED LOGISTIC SUPPORT - DEVELOPMENTAL SUPPORTABILITY TEST AND EVALUATION GUIDE" 12. DA PAM 700-55, "INSTRUCTIONS FOR PREPARING THE INTEGRATED LOGISTIC SUPPORT PLAN" 12a. DA PAM 738-750, "THE ARMY MAINTENANCE MANAGEMENT SYSTEMS (TAMMS)" 13. DA PAM 750-21, "LOGISTIC SUPPORT MODELLING" 14. AMC PAM 700-4, "LOGISTICS SUPPORT ANALYSIS TECHNIQUES GUIDE (WITH PALMAN)" 14a. AMC PAM 700-11, "LOGISTICS SUPPORT ANALYSIS REVIEW TEAM GUIDE" 15. AMC PAM 750-2, "MAINTENANCE OF SUPPLIES AND EQUIPMENT GUIDE TO RELIABILITY CENTERED MAINTENANCE" 16. MIL-STD-152, "TECH REVIEW GUIDELINES" 17. MIL-STD-210A, "CLIMATIC EXTREMES FOR MILITARY EQUIPMENT" 18. MIL-STD-470, -471, "MAINTAINABILITY STANDARDS" 19. MIL-STD-756, "RELIABILITY MODELLING & PREDICTIONS" 20. MIL-STD-780, "MAINTENANCE ENGINEERING ANALYSIS CONTROL NUMBER (MEACNS) FOR AERONAUTICAL EQUIPMENT, UNIFORM NUMBERING SYSTEM 21. MIL-STD-781, "RELIABILITY DESIGN QUALIFICATION AND PRODUCTION ACCEPTANCE TESTS: EXPONENTIAL DISTRIBUTION 22. MIL-STD-785B, "RELIABILITY PROGRAM FOR SYSTEMS AND EQUIPMENT DEVELOPMENT & PRODUCTION" 23. MIL-STD-810, "ENVIRONMENTAL TEST METHODS & ENGINEERING GUIDELINES" 24. MIL-STD-881, "WORK BREAKDOWN STRUCTURES FOR DEFENSE MATERIEL ITEMS 25. MIL-STD-882, "SYSTEM SAFETY PROGRAM REQUIRMENTS" 26. MIL-STD-965, "PARTS CONTROL PROGRAM" 27. MIL-STD-1369A, "INTEGRATED LOGISTIC SUPPORT PROGRAM REQUIREMENTS" 28. MIL-STD-1388-1A, "LOGISTICS SUPPORT ANALYSIS" 29. MIL-STD-1388-2A, "LOGISTICS SUPPORT ANALYSIS RECORD"

Name	Label	Description
		30. MIL-STD-1629, "PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS & CRITICALITY ANALYSIS" 31. MIL-HDBK-472, "MAINTAINABILITY PREDICTION" 32. MIL-M-24100B, "FUNCTIONALY ORIENTED MAINTENANCE MANUALS (FOMM) FOR EQUIPMENT & SYSTEMS"
PM/DF	PROGRAM MANAGER DATA FILE	Contains those files and data which are normally developed by and/or retained by the Program Manager for proper management of the Development Program. These files include: 1. Engineering Drawings 2. Engineering Characteristics 3. DT/OT Results 4. Concept Formulation Package (CFP) 5. Design Concept Paper (DCP) 6. Type Technical Reviews Required 7. Milestone Schedules 8. Funding Profiles 9. Required Operational Capabilities (ROC) 10. Item/Equipment Specifications 11. Item/Equipment Missions and Functions 12. Equipment, Manpower, and Technical risk assessments (From LSA Task 301.2.3) 13. Tradeoff Determination Analysis (TOD) 14. Tradeoff Analysis (TOA) 15. Beast Technical Approach Analysis (BTA) 16. Cost and Operational-Effectiveness Analysis (COEA) 17. Hardware Specifications 18. RAM Requirements
PM/ILSMT FILE	PM/ILSMT FILES OF ILS SUPPORT	THOSE FILES FOUND IN THE PROGRAM MANAGER FILES OR WITH THE ILSMT RELATING TO EXISTING OR PAST EQUIPMENT OR SYSTEMS WHICH MAY BE OF ASSISTANCE IN QUANTIFING THE CURRENT BASELINE OF ILS SUPPORT. THESE DATA ARE TO BE USED IN TASK 402.2.1.2 TO DETERMINE THE CURRENT ILS SUPPORT SYSTEM TO COMPARE TO THE ILS SUPPORT FOR THE NEW EQUIPMENT/SYS.

	Name	Label	Description
	PM/ILSMT	PM/ILSMT INITIATE REQRMNT	THE PROGRAM MANAGER OR THOSE ACTIVITIES, AGENCIES, OR AUTHORITIES THAT ARE RESPONSIBLE FOR THE INITITATION OF THE REQUIREMENTS FOR AN ILS ELEMENT ASSESSMENT DURING A DEVELPMENT PROGRAM FOR A SYSTEM AND/OR EQUIPMENT IN ACCORDANCE WITH AR 700-127. THE KEY ACTION (OUTPUT) REQUIRED OF THIS EXTERNAL ENTITY IS THE DIRECTIVE, AUTHORITY, OR OTHER DOCUMENTATION THAT INITIATES THE REQUIREMENT FOR THE APPLICATION OF THIS ILS ASSESSMENT TO A SPECIFIC SYSTEM/EQUIPEMNT DEVELOPMENT PROGRAM AT A SPECIFIED POINT IN ITS LIFE CYCLE.

ANNEX C

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LSA SUBTASK 402.2.1
NEW SYSTEM/EQUIPMENT IMPACT

SUBTASK 402.2.1
NEW SYSTEM/EQUIPMENT IMPACT - EARLY FIELDING

PROCESS 402.2.1.1 - IDENTIFY/QUANTIFY RELEVANT NEW SYSTEM/ EQUIPMENT ILS ELEMENTS

DESCRIPTION:

This subtask has the primary objective of identifying and quantifying the relevant ILS support elements associated with the early fielding of a new system/equipment into the current/projected U.S. Army field environment and its logistic support elements. Each of seven (7) major ILS elements are selectively or iteratively investigated for the new system/equipment. The final analytical results of each ILS element are to be in form appropriate for integration into a final overall impact analysis. A series of resulting recommendations will be provided in the last process relative to proposed changes to existing, proposed, and/or planned logistic support systems.

The seven ILS elements to be analyzed include:

1. Depot Level Workload and Scheduling
2. Provisioning & Inventory Factors
3. ATE Availability & Capability
4. Manpower & Personnel
5. Training Programs & Requirements
6. POL Requirements
7. Transportation Systems

FIRST ITERATION - DEPOT LEVEL WORKLOAD AND SCHEDULING

PURPOSE:

Identify the factors applicable to the new system/equipment under consideration that are required to determine the Depot Level workload and the scheduling of the workload.

PROCEDURE:

1. Obtain from the Program Manager's Data File and/or the Acquiring Activity Data File, the following categories of data representing the System/Equipment under consideration:

   NOTE: The type and source of data used to perform this effort shall not be limited to the following, but on an "as applicable" basis, other approved documentation shall be used if it permits completion of this Process.

A. Basis of Issue Plan (BOIP)
B. Qualitative and Quantitative Personnel Requirements Information (QQPRI) documentation.
C. Material Fielding Plan (MFP)
D. Required Operational Capability (ROC)
E. Joint Service Operational Requirement (JSOR), when applicable.

2. From LSA Task 303, obtain tradeoff analysis information impacting the Depot Level Workload and/or Scheduling but not incorporated in any of the documents mentioned in paragraph 1, above.

3. Review the available documentation mentioned in paragraphs 1 and 2, above, extract the following information and enter on form entitled "NEW SYSTEM/EQUIPMENT DEPOT WORKLOAD AND SCHEDULING REQUIREMENTS".

   A. Depot level workload requirements including but not limited to the following:

      (1) Type and quantity of personnel to maintain the new system/equipment.
      (2) Time required to perform each depot level maintenance task, repair task, or overhaul.

   B. Depot level scheduling requirements to accomplish:

      (1) Known maintenance tasks on a scheduled and unscheduled basis.
      (2) Anticipated repair tasks on a scheduled and unscheduled basis.
      (3) System/equipment overhaul under scheduled and unscheduled conditions.

4. Enter on form entitled "NEW SYSTEM/EQUIPMENT SOURCE DATA LIST", all source documents used in the determination of the system/equipment depot workload and scheduling requirements.

5. Upon completion of this Process, accumulate and package all source data with the completed forms on top and ready for further processing and analysis.

The following references may be useful:

AMC/TRADOC PAM70-2, MATERIAL ACQUISITION HANDBOOK
AR 700-127, INTEGRATED LOGISTIC SUPPORT
DA PAM 700-28, INTEGRATED LOGISTIC SUPPORT PROGRAM ASSESSMENT ISSUES & CRITERIA

NEW SYSTEM/EQUIPMENT SOURCE DATA LIST
DEPOT WORKLOAD AND SCHEDULING

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT
SOURCE DATA LIST

ITEM NO.	DOCUMENT NO.	DOCUMENT NAME	ISSUE DATE	REV. LTR.	REV. DATE	REMARKS

NEW SYSTEM/EQUIPMENT
DEPOT WORKLOAD AND SCHEDULING REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT
DEPOT WORKLOAD AND SCHEDULING REQUIREMENTS

ITEM NO.	WORKLOAD					SCHEDULING (PER ANNUM)					
	SKILL CODE	SPECIALTY QTY	TIME REQD EACH ACTION			MAINTENANCE		REPAIR		OVERHAUL	
			MAINT	REPAIR	O/V	SCHED.	UNSCHED.	SCHED.	UNSCHED.	SCHED.	UNSCHED

SECOND ITERATION - PROVISIONING FACTORS

PURPOSE:

To identify the Provisioning, including the Petroleum-Oil-Lubricant, requirements necessary to support the new system/equipment from indenture level 1 (end item) through to the lowest indenture level (piece part).

PROCEDURES:

1. From the Program Manager's Data File, obtain the Basis of Issue Plan (BOIP) documentation and the Material Fielding Plan documentation identifying the information relating to Supply Support.

2. Should data in the two documents prove insufficient to accomplish this effort, refer to the Supply Support element data generated and documented in Processes 302.2.2 and/or 302.2.4 or LSA Task 401.

   NOTE: Additional sources of information such as the developed "Work Breakdown Structure" documentation per MIL-STD-881 and the Provisioning documentation if any, per MIL-STD-1388-2A, shall be utilized if need be, to supplement the above data.

3. Determine from the documentation accumulated in paragraphs 1 or 2 above, the new system/equipment Provisioning requirements necessary to support indenture level 1 hardware (end item) through the lowest indenture level items (piece parts) of the system at all levels of Army Maintenance.

   NOTE: If the System/Equipment under consideration is a joint service procurement effort, then the Joint Service Operational Requirement documentation shall be referred to and the Supply Support (in particular, the Provisioning information) shall be identified and retained for use in this Process.

4. Identify each Provisioning document found suitable for impact evaluation purposes with the title "NEW SYSTEM/EQUIPMENT PROVISIONING REQUIREMENTS DATA", and list the document name and other identification data on form entitled "NEW SYSTEM/EQUIPMENT PROVISIONING REQUIREMENTS DATA".

5. From the documentation accumulated in paragraph 1 or 2 above, extract the information constituting the new system/equipment, subsystems/subequipments and assembly level POL requirements. Indicate the POL requirements in form entitled "NEW SYSTEM/EQUIPMENT PROVISIONING, PETROLEUM OIL & LUBRICANT REQUIREMENTS".

6. Upon completion of this process, accumulate and package all source data with the completed forms on top and ready for further processing and analysis.

The following references may be useful:

MIL-STD-881, WORK BREAKDOWN STRUCTURE.
MIL-STD-1388-2A, LOGISTIC SUPPORT ANALYSIS RECORD.
AMC/TRADOC PAM 70-2, MATERIAL ACQUISITION HANDBOOK.
DA PAM 700-18, PROVISIONING OF U.S. ARMY EQUIPMENT.
AR 700-127, INTEGRATED LOGISTIC SUPPORT.
DA PAM 700-28, INTEGRATED LOGISTIC SUPPORT PROGRAM ASSESSMENT ISSUES & CRITERIA.

NEW SYSTEM/EQUIPMENT DATA
PROVISIONING REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT PROVISIONING REQUIREMENTS DATA						
ITEM NO.	DOCUMENT NO.	DOCUMENT NAME	ISSUE DATE	REV. LTR.	REV. DATE	REMARKS

NEW SYSTEM/EQUIPMENT
POL REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT PETROLEUM - OIL - LUBRICANT REQUIREMENTS				
ITEM NO.	NAME OR TYPE	QUANTITY - U.S. GAL		REMARKS
		NON RECURRING	ANNUAL RECURRING	

THIRD ITERATION - ATE REQUIREMENTS AND CAPABILITY

PURPOSE:

To identify Automatic Test Equipment (ATE), if any, and the capabilities that are required to support the New System/Equipment when fielded.

PROCEDURES:

1. For identification of the ATE equipment, obtain the required data and documents prepared and accumulated in Process 302.2.1.5A5 (see LSA task 302, APJ Report 966-234) and packaged with the form entitled "ILS Quantification-SE/TMDE". From this package, remove the completed ILS subelement form entitled "ATE" and the documents indicated thereon. If the documents are not packaged with the form, obtain this data from the Program Manager's Data File.

2. In the event the above data are not available, obtain from the Program Manager's Data File the following documents:

   A. Operation & Organizational Plan (O&O Plan)

   B. Required Operational Capability (ROC)

   C. Material Fielding Plan (MFP)

   D. If available, the Army Modernization Information Memorandum (AMIM)

3. From either the documents accumulated in paragraph 1 or 2, above, determine the required ATE equipment, the quantity, the identification data, and the descriptive information necessary to prepare and complete the form entitled "NEW SYSTEM/EQUIPMENT ATE REQUIREMENTS AND CAPABILITIES".

4. Justify the entries in the "NEW SYSTEM/EQUIPMENT ATE REQUIREMENTS AND CAPABILITIES" form by noting the source documentation used on form entitled "NEW SYSTEM/EQUIPMENT ATE SOURCE DATA".

5. Accumulate the completed forms and source documentation and package with the "NEW SYSTEM/EQUIPMENT ATE REQUIREMENTS & CAPABILITIES" form on top.

The following references may be useful:

AMC/TRADOC PAM 70-2, MATERIAL ACQUISITION HANDBOOK
AR 700-127, INTEGRATED LOGISTIC SUPPORT
DA PAM 700-28, INTEGRATED LOGISTIC SUPPORT PROGRAM ASSESSMENT ISSUES & CRITERIA
DA PAM 700-21, THE ARMY TMDE REGISTER INDEX & INSTRUCTIONS
DA PAM 700-21-1, DEPT OF ARMY TMDE PREFERRED ITEMS LIST
DA PAM 700-20, THE ARMY TMDE REGISTER

NEW SYSTEM/EQUIPMENT
ATE SOURCE DATA

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT
ATE SOURCE DATA

ITEM NO.	DOCUMENT NO.	DOCUMENT NAME	ISSUE DATE	REV. LTR.	REV. DATE	REMARKS

NEW SYSTEM/EQUIPMENT
ATE REQUIREMENTS AND CAPABILITIES

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT
ATE REQUIREMENTS & CAPABILITIES

ITEM NO.	NAME OR TYPE	NOMENCLATURE OR MANUFACTURER P/N	TOTAL QTY REQD	MAINT LEVEL		CHARACTERISTIC
				O-I-D	QTY	

FOURTH ITERATION - MANPOWER & PERSONNEL FACTORS

PURPOSE:

To identify the manpower and personnel requirements necessary to field a new system/equipment.

PROCEDURES:

1. If an Army Modernization Information Memorandum (AMIM) has been prepared and completed as well as approved, then this document shall be used for identification of system/equipment new manpower requirements, manpower increases or reductions, and personnel requirements.

2. In the event, an AMIM is not available, incomplete or otherwise unsuitable, obtain and refer to the following documents, either in whole or in part, to ascertain manpower and personnel requirements.

   A. Baseline Comparison System documents developed in LSA Task 203.
   B. Early Comparability Analysis (ECA) documentation, if applicable.
   C. System Manprint Management Plan (SMMP).

      NOTE: Refer, obtain, and review the sources of data indicated in TAB "A" of this document.

   D. Qualitative and Quantitative Personnel Requirements Information (QQPRI) documentation.
   E. Organizational & Operational Plan (O&O Plan).
   F. Required Operational Capability (ROC).
   G. Material Fielding Plan (MFP).
   H. Joint Services Operational Requirement (JSOR), if applicable.
   I. LSA Task 303.2.5 - Manpower and Personnel Tradeoffs.
   J. LSAR "G" Record and "D1" Record.
   K. Process 302.2.1.5A4, (see LSA subtask 302.2.1 and APJ Report 966-234) "Quantified Manpower & Personnel Data".

3. Extract from the AMIM, if available, the manpower increases, manpower reduction, MOS/SSI/ASI/SQI, and other categories of personnel. List the new system/equipment manpower & personnel data on form entitled "NEW SYSTEM/EQUIPMENT PREDETERMINED MANPOWER & PERSONNEL REQUIREMENTS".

NOTE: If the AMIM provides all required Manpower & Personnel impact data on new versus existing system/equipment, then do not proceed any further with this Process but proceed to Process 402.2.1.3.

4. In the event, an AMIM is not available, incomplete or otherwise unsuitable, refer to the documents indicated in paragraph 2, above, in particular, the Qualitative and Quantitative Personnel Requirements Information (QQPRI) documents, the Material Fielding Plan (MFP), the Systems MANPRINT Management Plan (SMMP), and the Quantified Manpower & Personnel Data per Process 302.2.1.5A4.

NOTE: In the event that no one particular document contains all required information, then portions of all documents listed in paragraph 2, or other source documents shall be used to complete this Process. Indicate the source documents used on form entitled "NEW SYSTEM/EQUIPMENT MANPOWER & PERSONNEL DOCUMENT SOURCE LIST".

Proceed with the development of the Manpower & Personnel requirements as follows:

A. Review the background data used in Process 302.2.1.5A4, if available, to develop the Quantified Manpower & Personnel Data. Check to assure that it is current and includes the latest Tradeoff Analysis Data per Task 303.

B. Any of the other data source(s) mentioned herein and used in the performance of this process shall be:

(1) Checked for currency and completeness with the latest Tradeoff Analysis data per Task 303 where applicable.
(2) In a form that permits the required information to be extracted.
(3) Contains the total or identifiably complete listing of all manpower and personnel requirements associated with the new system/equipment.

C. On form entitled "NEW SYSTEM/EQUIPMENT MANPOWER AND PERSONNEL REQUIREMENTS", systematically indicate therein all manpower and personnel requirements necessary to field the new system/equipment.

5. Accumulate the completed forms and source documentation and package, with the forms on top, for further processing.

The following references may be useful:

AR 71-2, BASIS OF ISSUE PLAN (BOIP) & QUALITATIVE AND QUANTITATIVE PERSONNEL REQUIREMENTS INFORMATION (QQPRI).
AR 570-2, ORGANIZATION & EQUIPMENT AUTHORIZATION TABLES - PERSONNEL.
AR 602-2, MANPOWER & PERSONNEL INTEGRATION (MANPRINT).
AR 611-XXX, MILITARY PERSONNEL OCCUPATIONAL CLASSIFICATION & SPECIALTIES.
AR 700-127, INTEGRATED LOGISTIC SUPPORT
DA PAM 5-25, ARMY MODERNIZATION INFORMATION MEMORANDUM (AMIM).
AMC/TRADOC PAM 70-2, MATERIAL ACQUISITION HANDBOOK

NEW SYSTEM/EQUIPMENT
PREDETERMINED MANPOWER & PERSONNEL REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT
PREDETERMINED MANPOWER & PERSONNEL REQUIREMENTS

NOTE: Data to be extracted from the "AMIM"

ITEM NO.	NEW SYSTEM/EQUIPMENT MOS/SSI/ ASI/SQI	CATEGORY AND/ OR GRADE	IMPACT ON EXISTING SYSTEM/EQUIPMENT OPERATOR (+/-)	ORG/UNIT (+/-)	INT/DS (+/-)	INT/GS (+/-)	DEPOT (+/-)	OTHER (SPECIFY) (+/-)

NEW SYSTEM/EQUIPMENT
MANPOWER & PERSONNEL DOCUMENT SOURCE LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT
MANPOWER & PERSONNEL DOCUMENT SOURCE LIST

ITEM NO.	DOCUMENT NAME	DOC. NO.	ISSUE DATE	REV. LTR.	REV. DATE	REMARKS

NEW SYSTEM/EQUIPMENT
TOTAL MANPOWER & PERSONNEL REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT
MANPOWER AND PERSONNEL REQUIREMENTS

NOTE: LIST ALL MANPOWER AND PERSONNEL REQUIREMENTS

ITEM NO.	REQUIRED MOS/SSI/ ASI/SQI	CATEGORY/ GRADE IDENT	QTY OPER	QTY ORG/ UNIT	QTY INT/ DS	QTY INT/ GS	QTY DEPOT	OTHER (SPECIFY)

FIFTH ITERATION - TRAINING PROGRAMS AND REQUIREMENTS

PURPOSE:

To identify the individual elements constituting the required Training Programs and the Training Requirements necessary to field the New System/Equipment.

PROCEDURES:

1. From LSA Task 203, obtain the Baseline Comparison System Documentation and from the Program Manager's Data File, obtain the ILS Plan. In each case, insure that the latest tradeoff analysis results from LSA Task 303 have been incorporated or the data has been documented and is attached.

2. Should the above data prove to be insufficient, or unusable, then obtain and review for suitability and use, in whole or in part, the following documents from the Program Manager's Data File or the Acquiring Activity File:

   A. Training Device Requirement (TDR) documentation and/or Commercial Training Device Requirement (CTDR) documentation.

   B. The Required Operational Capability (ROC)

   C. Joint Services Operational Requirements (JSOR) documentation and agreement relating to training and training devices when a JSOR or JSOR Agreement is applicable to the program.

   D. Data accumulated and packaged, and used to generate Training & Training Device ILS element documentation:

      NOTE: Prior to use of this background data, make sure that the latest tradeoff analysis results per LSA Task 303 have been incorporated.

3. From the documents accumulated in paragraphs 1 or 2 above, perform the following:

   NOTE: As each of the following efforts are performed, indicate the sources of information used on form entitled "TRAINING PROGRAM AND REQUIREMENTS INFORMATION SOURCE LIST".

A. On form entitled "TRAINING PERSONNEL REQUIREMENTS (Instructors & Key Personnel)" indicate the categories and quantities of instructor and Key personnel required for each portion of Institutional level and Unit level training.

B. On form entitled "TRAINING MATERIALS, AIDS & DEVICES" list the Materials, Aides, and Devices required to perform the necessary training activities at each portion of Institutional level and Unit level activity. Provide total quantity of each item.

C. Indicate on form entitled "TRAINING EQUIPMENT, SUPPORT & TEST EQUIPMENT, AND TRAINING AMMUNITION" all required training equipments, support equipment and test equipment and/or training ammunition required at Institutional level and Unit level training centers.

4. Upon completion of this effort, accumulate and package the source data with the completed forms on top.

The following references may be useful:

AR 350-35, NEW EQUIPMENT TRAINING
AR 350-38, TRAINING DEVICES: POLICIES & PROCEDURES
AR 700-127, INTEGRATED LOGISTIC SUPPORT
AR 750-4, DEPOT MATERIAL AND SUPPORT TRAINING ACTIVITIES
TRADOC-R 350-4, THE TRADOC TRAINING EFFECTIVENESS ANALYSIS (TEA) SYSTEM
TRADOC-R 350-7, A SYSTEMS APPROACH TO TRAINING
TRADOC-R 351-9, INDIVIDUAL & COLLECTIVE TRAINING PLAN FOR DEVELOPING SYSTEMS, POLICY, AND PROCEDURES.
DA PAM 700-28, INTEGRATED LOGISTIC SUPPORT PROGRAM ASSESSMENT, ISSUES AND CRITERIA.
AMC/TRADOC PAM 70-2, MATERIAL ACQUISITION HANDBOOK

NEW SYSTEM/EQUIPMENT
TRAINING PROGRAMS & REQUIREMENTS INFORMATION SOURCE LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT
TRAINING PROGRAM & REQUIREMENTS INFORMATION SOURCE LIST

ITEM NO.	DOCUMENT NO.	DOCUMENT NAME	ISSUE DATE	REV LTR	REV DATE	REMARKS

NEW SYSTEM/EQUIPMENT
TRAINING PERSONNEL REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT
TRAINING PERSONNEL REQUIREMENTS
(INSTRUCTORS & KEY PERSONNEL)

ITEM NO.	SKILL LEVEL		TOTAL QTY	INSTITUTIONAL TRAINING		UNIT TRAINING		REMARKS
	MOS	CATEGORY		OPERATOR (✓)	SUPPORTER (✓)	INDIVIDUAL (✓)	COLLECTIVE (✓)	

NEW SYSTEM/EQUIPMENT
TRAINING MATERIELS, AIDS & DEVICES

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT TRAINING MATERIALS, AIDS, & DEVICES							
				WHERE USED			
				INSTITUTE TRAINING		UNIT TRAINING	
ITEM NO.	ITEM NAME OR NOMENCLATURE	PART/DWG NO. OR FED STOCK NO.	TOTAL QTY REQ'D	OPERATOR (✓)	SUPPORT (✓)	INDIVIDUAL (✓)	COLLECTIVE (✓)

NEW SYSTEM/EQUIPMENT
TRAINING EQUIPMENT, SUPPORT & TEST EQUIPMENT, TRAINING AMMUNITION

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT
TRAINING EQUIPMENT, SUPPORT & TEST EQUIPMENT
AND TRAINING AMMUNITION

ITEM NO.	ITEM NAME OR NOMENCLATURE	PART/DWG NO. OR FED STOCK NO.	TOTAL QTY REQD	WHERE USED			
				INSTITUTIONAL TRAINING		UNIT TRAINING	
				OPERATOR (√)	SUPPORTER (√)	INDIVIDUAL (√)	COLLECTIVE (√)

SIXTH ITERATION - NEW SYSTEM/EQUIPMENT INVENTORY FACTORS

PURPOSE:

To identify new items of supply and their quantities or changes in quantities of existing inventory items.

PROCEDURES:

1. Obtain from the Program Manager's Data File or from the Acquiring Activity File the following:

   A. Combat Authorized Stockage List
   B. Prescribed Load List
   C. The Wholesale Stockage Level documentation
   D. The Retail Stockage Level documentation

2. Review the above mentioned documentation for completeness and accuracy. If acceptable, do not proceed any further with this Process. However, accumulate all the documentation, identify each "List" on form entitled "NEW SYSTEM/EQUIPMENT INVENTORY SOURCE DATA LIST", and package for further processing and analysis.

   NOTE: If the above mentioned "LISTS" do not exist, proceed with the following paragraphs.

3. Obtain from the Program Manager's Data File the BOIP and the applicable LSAR, in particular, the provisioning documentation and proceed as follows:

   A. Identify and highlight in such manner as to be unmistakable all items, quantities, and other information having an impact on existing Army Inventory and/or the make-up of the four (4) inventory lists mentioned in paragraph 1, above.

   B. Add a column to each item listing in the document and title it "DOC AFFECTED". Identify by code letter or other coding method the Inventory Control documents affected by each highlighted item and/or quantity. Make sure the codes and the documents they represent are defined in each document.

EXAMPLE:

Code Ltr.	Description
A	Combat Authorized Stockage List
B	Prescribed Load List
C	Wholesale Stockage Level
D	Retail Stockage Level

C. Each document shall be identified with the Process Name and Number.

D. Package each set of highlighted documents and identify with the Process Name and Number.

4. Upon completion of this process, accumulate and package all source data and completed forms (if used) and ready for further processing and analysis.

The following references may be useful:

MIL-STD-1388-2A, LOGISTIC SUPPORT ANALYSIS RECORD
AMC/TRADOC 70-2, MATERIAL ACQUISITION HANDBOOK
DA PAM 700-28, INTEGRATED LOGISTIC SUPPORT PROGRAM ASSESSMENT ISSUES AND CRITERIA
AR 700-127, INTEGRATED LOGISTIC SUPPORT
AR 710-1, CENTRALIZED INVENTORY MANAGEMENT OF THE ARMY SUPPLY SYSTEM

NEW SYSTEM/EQUIPMENT
INVENTORY SOURCE DATA LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT INVENTORY SOURCE DATA LIST						
ITEM NO.	DOCUMENT NAME	DOCUMENT NO.	ISSUE DATE	REV LTR	REV DATE	REMARKS

SEVENTH ITERATION - TRANSPORTATION SYSTEMS

PURPOSE:

Identify the individual elements of the Transport System required to operate, maintain, support, administer, and move the New System/Equipment under consideration.

PROCEDURES:

1. From the Program Manager's Data File obtain all Table of Organization & Equipment (TOE) documents applicable to the System/Equipment under consideration. Make sure the TOE's are current and approved.

2. From the available TOE's, review each one for data indicating transportability and transportation requirements applicable to the New System/Equipment. Indicate on form entitled "NEW SYSTEM/EQUIPMENT TRANSPORTATION SYSTEM SOURCE INFORMATION LIST (TOE DOCUMENTATION)" those TOE numbers, names and their applicable BOIP number containing transportation system data.

3. On form entitled "NEW SYSTEM/EQUIPMENT TRANSPORTATION REQUIREMENTS (TOE DOCUMENTATION)" document from the TOE data all items relating to transport and transportability of the New System/Equipment.

4. Should the available TOE documentation prove to be insufficient, incomplete or otherwise unsuitable for this effort then proceed as follows:

   A. Obtain from the Program Manager's Data File, Acquiring Activity File or the ILSMT Data File any or all of the following documents or any other usable data:

   (1) Required Operational Capability (ROC)
   (2) Joint Service Operational Requirement (JSOR), applicable, and if applicable, the JSOR Agreement.
   (3) The background data used to generate the documents in Process 302.2.1.5A10 entitled "Transport/ Transportability".
   (4) Material Fielding Plan (MFP) or the Joint- ILSP, if in existence.

   NOTE: a. Any and all of the above documentation, shall be reviewed prior to use in this effort, for accuracy and currency.

b. The background data used in Process 302.2.1.5A10 shall reflect the latest tradeoff analysis results performed in LSA Task 303.

B. A listing of documents and/or data used in this Process shall be prepared and indicated on enclosed form entitled "NEW SYSTEM/EQUIPMENT TRANSPORTATION SYSTEM SOURCE DATA LIST".

C. On form entitled "NEW SYSTEM/EQUIPMENT TRANSPORTATION SYSTEM REQUIREMENTS DATA" document all items relating to transport and transportability including total quantity of each and every transport item required to support the system/equipment.

5. Upon completion of this process accumulate and package all source data with the completed forms on top.

The following references may be useful:

AR 310-31, MANAGEMENT SYSTEMS FOR TABLE OF ORGANIZATION AND EQUIPMENT (TOE)
AR 310-34, EQUIPMENT AUTHORIZATION AND UTILIZATION POLICIES AND CRITERIA AND COMMON TABLE OF ALLOWANCES
AR 70-44, DOD ENGINEERING FOR TRANSPORTABILITY
AR 70-47, ENGINEERING FOR TRANSPORTABILITY
AR 700-127, INTEGRATED LOGISTIC SUPPORT
DA PAM 700-28, INTEGRATED LOGISTIC SUPPORT PROGRAM ASSESSMENT, ISSUES, AND CRITERIA
AMC/TRADOC PAM 70-2, MATERIAL ACQUISITION HANDBOOK

NEW SYSTEM/EQUIPMENT
TRANSPORTATION SYSTEM SOURCE INFORMATION LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT
TRANSPORTATION SYSTEM SOURCE INFORMATION LIST
(TOE DOCUMENTATION)

ITEM NO.	TOE ID NO.	TOE NAME	DATE OF ISSUE	CHANGE NO.	BOIP-TOE CHANGE DOC.	
					DATE	INCORPORATED (Y - N)

NEW SYSTEM/EQUIPMENT
TRANSPORTATION REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT
TRANSPORT REQUIREMENTS
(TOE DOCUMENTATION)

ITEM NO.	TOE ID NO.	TOE LINE/ LIN NO.	ITEM DESCRIPTION	TOTAL QTY REQ'D	REMARKS

NEW SYSTEM/EQUIPMENT
TRANSPORTATION SYSTEM SOURCE DATA LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT
TRANSPORTATION SYSTEM SOURCE DATA LIST

ITEM NO.	DOCUMENT NAME	DOC. NO.	ISSUE DATE	REV. LTR.	REV. DATE	REMARKS

NEW SYSTEM/EQUIPMENT
TRANSPORTATION SYSTEM REQUIREMENTS DATA

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

NEW SYSTEM/EQUIPMENT TRANSPORTATION SYSTEM REQUIREMENTS DATA					
ITEM NO.	ITEM NAME OR NOMENCLATURE	PART/DWG NO.	DESCRIPTION	TOTAL QTY REQD	REMARKS

EIGHTH ITERATION - DATA CONSOLIDATION

PURPOSE:

To accumulate the data packages developed in the seven iterations processes above and ready for analysis in Process 402.2.1.6.

PROCEDURES:

Accumulate the data packages developed in the analyses of the seven ILS elements and check to assure the following:

1. Each package is identified with the ILS Element Name.

2. All background data used to generate the required information and complete the applicable forms are an integrated part of the package.

3. All completed forms are on the top of each package and ready for further analysis.

The following references may be useful:

AR 700-127, INTEGRATED LOGISTIC SUPPORT
DA PAM 700-28, INTEGRATED LOGISTIC SUPPORT
AMC/TRADOC PAM 702, MATERIAL ACQUISITION HANDBOOK

PROCESS 402.2.1.2 - DETERMINE COMPATIBLE EXISTING SYSTEM/ EQUIPMENT ILS REQUIREMENTS

PURPOSE:

To identify the details of the following ILS areas of activity presently "in place" to support the existing system/equipment:

1. Depot Workload and Scheduling
2. Provisioning and POL Requirements
3. ATE Availability and Capability
4. Manpower & Personnel Factors
5. Training Programs and Requirements
6. Inventory Factors
7. Transportation Systems

PROCEDURES:

NOTE:
1. Prior to performing the efforts applicable to each of the seven ILS areas of activity mentioned above, obtain from the Program Manager's Office or from the actual Point of Contact, the data identifying, in detail, the make-up of each of the seven areas as they are presently fielded.
2. This procedure, in its entirety, shall be repeated for every presently fielded existing system/equipment being impacted by the New System/Equipment.

1. Review the procedure described in the first iteration of Process 402.2.1.1, (DEPOT LEVEL WORKLOAD AND SCHEDULING) paying particular attention to procedure paragraphs 3, 4, and 5 and substituting the words "EXISTING SYSTEM/EQUIPMENT" for the words "NEW SYSTEM/EQUIPMENT".

2. Review the procedures described in the second iteration of Process 402.2.1.1, (PROVISIONING AND POL REQUIREMENTS) paying particular attention to procedure paragraphs 3 through 6 and substituting the words "EXISTING SYSTEM/ EQUIPMENT" for the words "NEW SYSTEM/EQUIPMENT".

   A. As outlined in procedure paragraph 4, mark each provisioning document found suitable for impact evaluation purposes with the title "EXISTING SYSTEM/EQUIPMENT PROVISIONING REQUIREMENTS" and immediately under this title add "PROCESS NO: 402.2.1.2. At the same time, list the document name and other identification data on form

entitled "EXISTING SYSTEM/EQUIPMENT PROVISIONING REQUIREMENTS DATA".

B. With reference to procedure paragraph 5, indicate Existing System/Equipment POL requirements on form entitled "EXISTING SYSTEM/EQUIPMENT PETROLEUM-OIL-LUBRICANT REQUIREMENTS".

3. Refer to the procedure described in the Third Iteration of Process 402.2.1.1, ATE Availability and Capability, in particular, procedure paragraphs 3, 4, and 5 (NOTE: Substitute the words "EXISTING SYSTEM/EQUIPMENT" for the words "NEW SYSTEM/EQUIPMENT"). Complete forms entitled "EXISTING SYSTEM/EQUIPMENT ATE REQUIREMENTS AND CAPABILITIES" and "EXISTING SYSTEM/ EQUIPMENT ATE SOURCE DATA LIST". Package all data and forms as described in procedure paragraph 5 and ready for further processing and analysis.

4. Refer to the Fourth Iteration of Process 402.2.1.1, MANPOWER & PERSONNEL FACTORS, in particular, procedure paragraphs 3, 4, and 5 (NOTE: Substitute the words "EXISTING SYSTEM/ EQUIPMENT" for the words "NEW SYSTEM/EQUIPMENT"). Check the NEW SYSTEM/EQUIPMENT data package described in paragraph 5 and determine if form "NEW SYSTEM/ EQUIPMENT PREDETERMINED MANPOWER & PERSONNEL REQUIREMENTS" has been completed. If the form has been completed, DO NOT proceed any further with this procedure. If the form wasn't completed, then proceed with paragraphs 4 and 5 and complete forms entitled "EXISTING SYSTEM/EQUIPMENT MANPOWER & PERSONNEL DOCUMENT SOURCE LIST" and "EXISTING SYSTEM/EQUIPMENT MANPOWER AND PERSONNEL REQUIREMENTS". Package all data and forms as described in procedure paragraph 5 and ready for further processing and analysis.

5. Refer to the Fifth Iteration of Process 402.2.1.1, Training Programs and Requirements, in particular, procedure paragraphs 3 and 4 (NOTE: Substitute the words "EXISTING SYSTEM/ EQUIPMENT" for the words "NEW SYSTEM/EQUIPMENT"). Complete forms entitled "EXISTING SYSTEM/EQUIPMENT TRAINING PROGRAM AND REQUIREMENTS INFORMATION SOURCE LIST", EXISTING SYSTEM/EQUIPMENT TRAINING PERSONNEL REQUIREMENTS (INSTRUCTORS & KEY PERSONNEL)", "EXISTING SYSTEM/EQUIPMENT TRAINING MATERIALS, AIDS, & DEVICES" and "EXISTING SYSTEM/EQUIPMENT TRAINING EQUIPMENT, SUPPORT & TEST EQUIPMENT, AND TRAINING AMMUNITION". Package all data and completed forms as described in procedure paragraph 4 and ready for further processing and analysis.

6. Review the source inventory factor data accumulated and packaged in Sixth Iteration of Process 402.2.1.1, in particular, the Existing System/Equipment Stockage List, Load List, and Wholesale & Retail Stockage Level Data. Determine if each document represents the latest revision level, if not, review Process for the New System/Equipment in Process 402.2.1.1 and upgrade the entire data package to reflect the latest revision.

7. Refer to the Seventh Iteration of Process 402.2.1.1, TRANSPORTATION SYSTEMS, review the procedures, substituting the words "EXISTING SYSTEM/EQUIPMENT" for the words "NEW SYSTEM/EQUIPMENT" and on an "as applicable" basis complete the following forms:

   A. EXISTING SYSTEM/EQUIPMENT TRANSPORTATION SYSTEM SOURCE INFORMATION LIST (TOE DOCUMENTATION).
   B. EXISTING SYSTEM/EQUIPMENT TRANSPORTATION REQUIREMENTS (TOE DOCUMENTATION).
   C. EXISTING SYSTEM/EQUIPMENT TRANSPORTATION SYSTEM SOURCE DATA LIST.
   D. EXISTING SYSTEM/EQUIPMENT TRANSPORTATION REQUIREMENTS DATA.

Package all data and completed forms as described in procedure paragraph 5 and ready for further processing and analysis.

The following references may be useful:

AMC/TRADOC PAM 70-2, MATERIAL ACQUISITION HANDBOOK
AR 700-127, INTEGRATED LOGISTIC SUPPORT
DA PAM 700-28, INTEGRATED LOGISTIC SUPPORT PROGRAM ASSESSMENT ISSUES & CRITERIA

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS
SOURCE DATA LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS SOURCE DATA LIST						
ITEM NO.	DOCUMENT NO.	DOCUMENT NAME	ISSUE DATA	REV. LTR.	REV. DATE	REMARKS

EXISTING SYSTEM/EQUIPMENT REQUIREMENTS
DEPOT WORKLOAD AND SCHEDULING REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT
DEPOT WORKLOAD AND SCHEDULING REQUIREMENTS

ITEM NO.	WORKLOAD					SCHEDULING (PER ANNUM)					
	SKILL SPECIALTY		TIME REQ'D EACH ACTION			MAINTENANCE		REPAIR		OVERHAUL	
	CODE	QTY	MAINT	REPAIR	O/V	SCHED.	UNSCHED.	SCHED.	UNSCHED.	SCHED.	UNSCHED.

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS
PROVISIONING REQUIREMENT DATA

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS PROVISIONING REQUIREMENTS DATA						
ITEM NO.	DOCUMENT NO.	DOCUMENT NAME	ISSUE DATE	REV. LTR.	REV. DATE	REMARKS

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS
POL REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT
PETROLEUM - OIL - LUBRICANT REQUIREMENTS

ITEM NO.	NAME OR TYPE	QTY - U.S. GAL		REMARKS
		NON-RECURRING	ANNUAL RECURRING	

EXISTING SYSTEM/EQUIPMENT TLS REQUIREMENTS
ATE SOURCE DATA LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT ATE SOURCE DATA LIST						
ITEM NO.	DOCUMENT NO.	DOCUMENT NAME	ISSUE DATE	REV. LTR.	REV. DATE	REMARKS

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS
ATE REQUIREMENTS & CAPABILITIES

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT ATE REQUIREMENTS & CAPABILITIES							
ITEM NO.	NAME OR TYPE	NOMENCLATURE OR MANUFACTURER	PART NO.	TOTAL QTY REQD	MAINT LEVEL O-I-D	MAINT LEVEL QTY	CHARACTERISTICS

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS
MANPOWER & PERSONNEL DOCUMENT SOURCE LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT MANPOWER & PERSONNEL DOCUMENT SOURCE LIST					
ITEM NO.	DOCUMENT NAME	DOCUMENT NO.	ISSUE DATE / REV. LTR.	REV. DATE	REMARKS

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS
MANPOWER & PERSONNEL REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT
MANPOWER AND PERSONNEL REQUIREMENTS

NOTE: LIST ALL MANPOWER AND PERSONNEL REQUIREMENTS

ITEM NO.	MOS/SSI/ ASI/SQI	CATEGORY/ GRADE IDENT.	QTY OPER UNIT	QTY ORG/ DS	QTY INT/ GS	QTY INT/	QTY DEPOT	OTHER (SPECIFY)

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS
TRAINING PROGRAM & REQUIREMENTS INFORMATION SOURCE LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT
TRAINING PROGRAM & REQUIREMENTS INFORMATION SOURCE LIST

ITEM NO.	DOCUMENT NO.	DOCUMENT NAME	ISSUE DATE	REV. LTR.	REV. DATE	REMARKS

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS
TRAINING PERSONNEL REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT
TRAINING PERSONNEL REQUIREMENTS
(INSTRUCTORS & KEY PERSONNEL)

ITEM NO.	SKILL LEVEL		TOTAL QTY	INSTITUTIONAL TRAINING		UNIT TRAINING		REMARKS
	MOS	CATEGORY		OPERATOR (✓)	SUPPORTER (✓)	INDIVIDUAL (✓)	COLLECTIVE (✓)	

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS
TRAINING MATERIALS, AIDS & DEVICES

END ITEM NAME:
NOMENCLATURE::
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT TRAINING MATERIALS, AIDS, & DEVICES							
				WHERE USED			
				INSTITUTE TRAINING		UNIT TRAINING	
ITEM NO.	ITEM NAME OR NOMENCLATURE	PART/DWG NO. OR FED STOCK NO.	TOTAL QTY REQ'D	OPERATOR (✓)	SUPPORTER (✓)	INDIVIDUAL (✓)	COLLECTIVE (✓)

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS
TRAINING EQUIPMENT, SUPPORT & TEST EQUIPMENT AND TRAINING AMMO

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT TRAINING EQUIPMENT, SUPPORT & TEST EQUIPMENT AND TRAINING AMMUNITION							
				WHERE USED			
				INSTITUTE TRAINING		UNIT TRAINING	
ITEM NO.	ITEM NAME OR NOMENCLATURE	PART/DWG NO. OR FED STOCK NO.	TOTAL QTY REQ'D	OPERATOR (✓)	SUPPORTER (✓)	INDIVIDUAL (✓)	COLLECTIVE (✓)

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS
TRANSPORTATION SYSTEM SOURCE INFORMATION LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT
TRANSPORTATION SYSTEM SOURCE INFORMATION LIST
(TOE DOCUMENTATION)

ITEM NO.	TOE ID NO.	TOE NAME	DATE OF ISSUE	CHANGE NO.	BOIP-TOE CHANGE DOC.	
					DATE	INCORPORATED (Y - N)

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS
TRANSPORT REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT TRANSPORT REQUIREMENTS					
ITEM NO.	TOE ID NO.	TOE LINE/ LIN NO.	ITEM DESCRIPTION	TOTAL QTY REQ'D	REMARKS

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS
TRANSPORTATION SYSTEM SOURCE DATA LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT
TRANSPORTATION SYSTEM SOURCE DATA LIST

ITEM NO.	DOCUMENT NAME	DOCUMENT NO.	ISSUE DATE	REV. LTR.	REV. DATE	REMARKS

EXISTING SYSTEM/EQUIPMENT ILS REQUIREMENTS
TRANSPORTATION SYSTEM REQUIREMENTS DATA

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

EXISTING SYSTEM/EQUIPMENT TRANSPORTATION SYSTEM REQUIREMENTS DATA					
ITEM NO.	ITEM NAME OR NOMENCLATURE	PART/DWG NO.	DESCRIPTION	TOTAL OR REQ'D	REMARKS

PROCESS 402.2.1.3 - PLANNED WEAPON SYSTEM ILS REQUIREMENTS

PURPOSE:

To identify the details of the following ILS area of activity applicable to any Planned Weapon System that could be impacted by the new system/equipment.

1. Depot Workload and Scheduling
2. Provisioning and POL Requirements
3. ATE Availability and Capability
4. Manpower & Personnel Factors
5. Training Programs and Requirements
6. Inventory Factors
7. Transportation Systems

PROCEDURE:

NOTE:

1. Prior to performing the efforts applicable to each of the seven ILS areas of activity mentioned above, obtain from the Program Manager's Office or from the actual Point of Contact, the data identifying, in detail, the make-up of each of the seven areas as they apply to the Planned Weapon System.

2. This procedure, in its entirety, shall be repeated for every Planned Weapon System being impacted by the New System/Equipment.

1. Review the procedures described in the First Iteration of Process 402.2.1.1, DEPOT LEVEL WORKLOAD AND SCHEDULING, paying particular attention to procedure paragraphs 3, 4, and 5 and substitute the words "PLANNED WEAPON SYSTEM" for the words "NEW SYSTEM/EQUIPMENT". Complete forms entitled "PLANNED WEAPON SYSTEM DEPOT WORKLOAD AND SCHEDULING REQUIREMENTS" and "PLANNED WEAPON SYSTEM DEPOT WORKLOAD SCHEDULING SOURCE DATA LIST". Package all data and forms as described in paragraph 5.

2. Review the procedures described in the Second Iteration of Process 402.2.1.1, PROVISIONING AND POL REQUIREMENTS, paying particular attention to procedure paragraphs 3 through 6 and substitute the words "PLANNED WEAPON SYSTEM" for the words "NEW SYSTEM/EQUIPMENT".

A. As outlined in procedure paragraph 4, mark each provisioning document found suitable for impact evaluation purposes with the title "PLANNED WEAPON SYSTEM PROVISIONING REQUIREMENTS" and immediately under the title add "PROCESS NO: 402.2.1.3. At the same time, list the document name and other identification data on form entitled "PLANNED SYSTEM PROVISIONING REQUIREMENTS DATA".

B. With reference to procedure paragraph 5, indicate the Planned Weapon System POL Requirements on form entitled "PLANNED WEAPON SYSTEM PETROLEUM-OIL-LUBRICANT REQUIREMENTS".

3. Obtain from the Program Manager's Office or the Point of Contract for the Planned Weapon System, the following documents representing the Planned System Inventory Factors:

A. Combat Authorized Stockage List
B. Prescribed Load List
C. Wholesale Stockage Level
D. Retail Stockage Level

Should the above mentioned lists not be available or if incomplete or otherwise unsuitable, then obtain the Planned Weapon System LSAR Provisioning data prepared per MIL-STD-1388-2A and the BOIP and proceed as follows:

A. Identify each document with the Process Title and the Process Number immediately underneath. Complete form entitled "PLANNED WEAPON SYSTEM INVENTORY CONTROL FACTORS SOURCE DATA LIST".

B. Highlight the items, quantities and other information having a bearing on inventory or inventory control.

C. Add a column along side each listing of inventory items and title it "DOC AFFECTED". Identify by code letter or other coding method the applicable inventory control document. Make sure all codes and the documents they represent are defined in each document.

EXAMPLE:

CODE LTR	DESCRIPTION
A	Combat Authorized Stockage List
B	Prescribed Load List
C	Wholesale Stockage Level
D	Retail Stockage Level

D. Package each set of highlighted documents with the completed source data list form on top and ready for further processing and analysis.

4. Refer to the procedures described in the Third Iteration of Process 402.2.1.1, ATE REQUIREMENTS AND CAPABILITIES, in particular, procedure paragraphs 3, 4, and 5 (Note: Substitute the words "PLANNED WEAPON SYSTEM" for the words "NEW SYSTEM/ EQUIPMENT"). Complete forms entitled "PLANNED WEAPON SYSTEM ATE REQUIREMENTS AND CAPABILITIES" and "PLANNED WEAPON SYSTEM ATE SOURCE DATA LIST". Package all data and forms as described in procedure paragraph 5 and ready for further processing and analysis.

5. Refer to the Fourth Iteration of Process 402.2.1.1, MANPOWER & PERSONNEL FACTORS, in particular, procedure paragraphs 4 and 5 (Note: Substitute the words "PLANNED WEAPON SYSTEM for the words "NEW SYSTEM/EQUIPMENT"). Complete forms entitled "PLANNED WEAPON SYSTEM MANPOWER & PERSONNEL DOCUMENT SOURCE LIST" and "PLANNED WEAPON SYSTEM MANPOWER AND PERSONNEL REQUIREMENTS". Package all data and forms as described in procedure paragraph 5 and ready for further processing and analysis.

6. Refer to Fifth Iteration of Process 402.2.1.1A6, TRAINING PROGRAMS AND REQUIREMENTS, in particular, procedure paragraphs 3 and 4 (Note: Substitute the words "PLANNED WEAPON SYSTEM" for the words "NEW SYSTEM/EQUIPMENT"). Complete forms entitled "PLANNED WEAPON SYSTEM TRAINING PROGRAM AND REQUIREMENTS INFORMATION SOURCE LIST", "PLANNED WEAPON SYSTEM TRAINING PERSONNEL REQUIREMENTS (INSTRUCTORS & KEY PERSONNEL)", "PLANNED WEAPON SYSTEM TRAINING MATERIALS, AIDS, & DEVICES" and "PLANNED WEAPON SYSTEM TRAINING EQUIPMENT, SUPPORT & TEST EQUIPMENT AND TRAINING AMMUNITION". Package all data and completed forms as described in procedure paragraph 4 and ready for further processing and analysis.

7. Refer to Process 402.2.1.1A7, TRANSPORTATION SYSTEMS. Review the procedures, substituting the words "PLANNED WEAPON SYSTEM" for the words "NEW SYSTEM/EQUIPMENT" where it appears and on a "as applicable" basis complete the following forms:

   A. PLANNED WEAPON SYSTEM TRANSPORTATION SYSTEM SOURCE INFORMATION LIST (TOE DOCUMENTATION).

   B. PLANNED WEAPON SYSTEM TRANSPORTATION REQUIREMENTS (TOE DOCUMENTATION).

   C. PLANNED WEAPON SYSTEM TRANSPORTATION SYSTEM SOURCE DATA LIST.

   D. PLANNED WEAPON SYSTEM TRANSPORTATION REQUIREMENTS DATA.

   Package all data and completed forms as described in procedure paragraph 5 and ready for further processing and analysis.

The following references may be useful:

AMC/TRADOC PAM 70-2, MATERIAL ACQUISITION HANDBOOK
AR 700-127, INTEGRATED LOGISTIC SUPPORT
DA PAM 700-28, INTEGRATED LOGISTIC SUPPORT PROGRAM ASSESSMENT ISSUES & CRITERIA

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
DEPOT WORKLOAD & SCHEDULING SOURCE DATA LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

PLANNED WEAPON SYSTEM
DEPOT WORKLOAD & SCHEDULING SOURCE DATA LIST

ITEM NO.	DOCUMENT NO.	DOCUMENT NAME	ISSUE DATE	REV LTR	REV DATE	REMARKS

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
DEPOT WORKLOAD AND SCHEDULING REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NO:

PLANNED WEAPON SYSTEM
DEPOT WORKLOAD AND SCHEDULING REQUIREMENTS

ITEM NO.	WORKLOAD					SCHEDULING (PER ANNUM)					
	SKILL SPECIALTY		TIME REQD EACH ACTION			MAINT		REPAIR		O/V	
	CODE	QTY	MAINT	REPAIR	O/V	SCHED.	UNSCHED.	SCHED.	UNSCHED.	SCHED.	UNSCHED

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
PROVISIONING REQUIREMENTS DATA

END ITEM NAME:
NOMENCLATURE:
PART NO:

PLANNED WEAPON SYSTEM PROVISIONING REQUIREMENTS DATA						
ITEM NO.	DOCUMENT NO.	DOCUMENT NAME	ISSUE DATE	REV LTR	REV DATE	REMARKS

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
POL REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NO:

PLANNED WEAPON SYSTEM PETROLEUM-OIL-LUBRICANT REQUIREMENTS				
ITEM NO.	NAME OR TYPE	QTY - U.S. GAL NON-RECURRING	 ANNUAL RECURRING	REMARKS

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
INVENTORY CONTROL FACTORS SOURCE DATA LIST

END ITEM NAME:
NOMENCLATURE:
PART NO:

PLANNED WEAPON SYSTEM
INVENTORY CONTROL FACTORS SOURCE DATA LIST

ITEM NO.	DOCUMENT NAME	DOCUMENT NO.	ISSUE DATE	REV LTR	REV DATE	REMARKS

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
ATE SOURCE DATA LIST

END ITEM NAME:
NOMENCLATURE:
PART NO:

PLANNED WEAPON SYSTEM ATE SOURCE DATA LIST						
ITEM NO.	DOCUMENT NO.	DOCUMENT NAME	ISSUE DATE	REV LTR	REV DATE	REMARKS

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
ATE REQUIREMENTS AND CAPABILITIES

END ITEM NAME:
NOMENCLATURE:
PART NO:

PLANNED WEAPON SYSTEM ATE REQUIREMENTS AND CAPABILITIES							
ITEM NO.	NAME OR TYPE	NOMENCLATURE OR MANUFACTURER	PART NO.	TOTAL QTY REQ'D	MAINT LEVEL O-I-D	MAINT LEVEL QTY	CHARACTERISTICS

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
MANPOWER & PERSONNEL DOCUMENT SOURCE LIST

END ITEM NAME:
NOMENCLATURE:
PART NO:

PLANNED WEAPON SYSTEM MANPOWER & PERSONNEL DOCUMENT SOURCE LIST						
ITEM NO.	DOCUMENT NAME	DOCUMENT NO.	ISSUE DATE	REV LTR	DOC DATE	REMARKS

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
MANPOWER AND PERSONNEL REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NO:

PLANNED WEAPON SYSTEM
MANPOWER AND PERSONNEL REQUIREMENTS

NOTE: LIST ALL MANPOWER AND PERSONNEL REQUIREMENTS

ITEM NO.	MOS/SSI ASI/SQI	CATEGORY/ GRADE INDENT	QTY OPER	QTY ORG/ UNIT	QTY INT/ DS	QTY INT/ GS	QTY DEPOT	OTHER (SPECIFY)

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
TRAINING PROGRAM & REQUIREMENTS INFORMATION SOURCE LIST

END ITEM NAME:
NOMENCLATURE:
PART NO:

PLANNED WEAPON SYSTEM TRAINING PROGRAM & REQUIREMENTS INFORMATION SOURCE LIST						
ITEM NO.	DOCUMENT NO.	DOCUMENT NAME	ISSUE DATE	REV LTR	REV DATE	REMARKS

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
TRAINING PERSONNEL REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NO:

PLANNED WEAPON SYSTEM
TRAINING PERSONNEL REQUIREMENTS
(INSTRUCTORS & KEY PERSONNEL)

ITEM NO.	SKILL LEVEL		TOTAL QTY	INSTITUTIONAL TRAINING		UNIT TRAINING		REMARKS
	MOS	CATEGORY		OPERATOR (√)	SUPPORTER (√)	INDIVIDUAL (√)	COLLECTIVE (√)	

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
TRAINING MATERIALS, AIDS & DEVICES

END ITEM NAME:
NOMENCLATURE:
PART NO:

PLANNED WEAPON SYSTEM TRAINING MATERIALS, AIDS & DEVICES							
				WHERE USED			
				INSTITUTE TRAIN		UNIT TRAINING	
ITEM NO.	ITEM NAME OR NOMENCLATURE	PART/DWG NO. OR FED STOCK NO	TOTAL QTY REQ'D	OPERATOR (√)	SUPPORTER (√)	INDIVIDUAL (√)	COLLECTIVE (√)

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
TRAINING EQUIPMENT, SUPPORT & TEST EQUIPMENT AND TRAINING AMMUNITION

END ITEM NAME:
NOMENCLATURE:
PART NO:

PLANNED WEAPON SYSTEM
TRAINING EQUIPMENT, SUPPORT & TEST EQUIPMENT AND
TRAINING AMMUNITION

ITEM NO.	ITEM NAME OR NOMENCLATURE	PART/DWG NO. OR FED STOCK NO.	TOTAL QTY REQD	WHERE USED			
				INSTITUTE TRAIN		UNIT TRAINING	
				OPERATOR (✓)	SUPPORTER (✓)	INDIVIDUAL (✓)	COLLECTIVE (✓)

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
TRANSPORTATION SYSTEM SOURCE INFORMATION LIST

END ITEM NAME:
NOMENCLATURE:
PART NO:

PLANNED WEAPON SYSTEM
TRANSPORTATION SYSTEM SOURCE INFORMATION LIST
(TOE DOCUMENTATION)

ITEM NO.	TOE ID NO.	TOE NAME	DATE OF ISSUE	CHANGE NO.	BOIP-TOE CHANGE DOC. DATE	BOIP-TOE CHANGE DOC. INCORPORATED (Y - N)

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
TRANSPORT REQUIREMENTS

END ITEM NAME:
NOMENCLATURE:
PART NO:

PLANNED WEAPON SYSTEM TRANSPORT REQUIREMENTS					
ITEM NO.	TOE ID NO.	TOE LINE/ LIN NO	ITEM DESCRIPTION	TOTAL QTY REQ'D	REMARKS

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
TRANSPORTATION SYSTEM SOURCE DATA LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

PLANNED WEAPON SYSTEM
TRANSPORTATION SYSTEM SOURCE DATA LIST

ITEM NO.	DOCUMENT NAME	DOCUMENT NO.	ISSUE DATE	REV LTR	REV DATE	REMARKS

PLANNED WEAPON SYSTEM ILS REQUIREMENTS
TRANSPORTATION SYSTEM REQUIREMENTS DATA

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

PLANNED WEAPON SYSTEM TRANSPORTATION SYSTEM REQUIREMENTS DATA					
ITEM NO.	ITEM NAME OR NOMENCLATURE	PART/DWG NO.	DESCRIPTION	TOTAL QTY REQ'D	REMARKS

PROCESS 402.2.1.4 - EXISTING SUPPORT CHANGES TO EXISTING/PLANNED SYSTEM/EQUIPMENT

PURPOSE:

To determine by comparative analysis, those changes which wold be required in the support of existing weapon systems due to the new and/or critical ILS requirements of the new system/equipment. Alternatively, an analysis to determine changes required of the new system/equipment should no changes be made to the existing support system.

PROCEDURES:

1. The Analysis must address each of the seven ILS element set forth in Task 402.2.1.1 above:

    a. Depot Workload and Scheduling
    b. Provisioning & POL Data
    c. ATE Availability & Capability
    d. Manpower & Personnel Data
    e. Training Programs & Requirements
    f. Inventory Factors
    g. Transportation Systems Data.

The comparative and documentation of results are done as part of Process 402.2.1.6.

PROCESS 402.2.1.5 - POTENTIAL CHANGES - PLANNED SYSTEM/EQUIPMENT ILS REQUIREMENT

PURPOSE:

To identify of potential changes to planned system/equipment and/or their support because of new and/or critical ILS support requirements imposed by the new systems/equipment under consideration.

PROCEDURES:

1. This analysis/evaluation should address all seven of the basic ILS elements set forth in Task 402.2.1.1 and 402.2.1.3 above:

    a. Depot Workload and Scheduling
    b. Provisioning & POL
    c. ATE Availability and Capability
    d. Manpower & Personnel Data
    e. Training Programs and Requirements
    f. Inventory Factors
    g. Transportation Systems/Data.

The potential changes and documentation of results are done as part of Process 402.2.1.6.

PROCESS 402.2.1.6 - IMPACT ANALYSIS, NEW/EXISTING/PLANNED SYSTEM EQUIPMENT

PURPOSE:

To determine the potential changes to existing and/or planned system/equipment due to new system/equipment ILS requirements and to determine the impact of the New System/Equipment on Existing System/Equipment and any Planned Weapon System by assessing selected ILS requirements.

PROCEDURE:

1. Accumulate the packages of source data and forms developed in Process 402.2.1.1 through 402.2.1.3. Consolidate the packages into the ILS requirement categories listed below:

    A. Depot Workload & Scheduling
    B. Provisioning and POL Requirements
    C. ATE Requirements and Capabilities
    D. Manpower & Personnel Factors
    E. Training Programs and Requirements
    F. Inventory Factors
    G. Transport Systems

2. DEPOT WORKLOAD AND SCHEDULING - Perform the following actions to determine New System/Equipment Depot Workload and Scheduling impact on Existing and Planned Weapon Systems:

    A. From form entitled "NEW SYSTEM/EQUIPMENT DEPOT WORKLOAD AND SCHEDULING REQUIREMENTS", transpose the listing of Skill Specialty Codes and Manpower Quantity Required to form entitled "DEPOT WORKLOAD IMPACT ANALYSIS".

    B. Review the "EXISTING SYSTEM/EQUIPMENT DEPOT WORKLOAD AND SCHEDULING REQUIREMENTS" form, calculate the difference between the new and existing system manpower quantity requirements for each Skill Specialty Code and indicate the difference (impact) on the analysis form.

C. Repeat paragraph 2.B, above, except perform the review and calculations for the Planned Weapon System. Enter the manpower difference (impact) on the analysis form.

D. For manhour impact determination on Depot Workload, proceed as follows:

(1) Calculate the total number of annual manhours per Skill Specialty Code as follows:

NOTE: Each of the following actions shall be performed on form entitled "DEPOT WORKLOAD AND SCHEDULING REQUIREMENTS" covering the NEW SYSTEM/EQUIPMENT, the EXISTING SYSTEM/EQUIPMENT, and the PLANNED WEAPON SYSTEM.

(a) From the "TIME REQD" column, multiply the "MAINT" hours for each Skill Specialty Code by the quantity of scheduled and unscheduled "MAINT" actions indicated in the "SCHEDULING (per annum)" column.

(b) Repeat subparagraph (a), above, for annual "Repair" manhour determination and "O/V" manhour determination.

(c) Add the total "MAINT", "REPAIR", and "O/V" manhour to arrive at the annual manhour requirement per Skill Specialty Code.

(2) Indicate the New System/Equipment annual manhour per Skill Specialty Code on Form entitled "DEPOT WORKLOAD IMPACT ANALYSIS". Repeat paragraphs 2.B and 2.C, above, except calculate annual manhour differences.

E. Transpose the New System/Equipment Scheduling information on form entitled "NEW SYSTEM/EQUIPMENT DEPOT WORKLOAD AND SCHEDULING REQUIREMENTS" to form entitled "SCHEDULING IMPACT ANALYSIS (PER ANNUM BASIS)".

Compare the Existing System/Equipment scheduling requirements and the Planned Weapon System scheduling requirements with the New System/Equipment requirements. Calculate the

difference between the New and Existing System scheduling and the New and the Planned Weapon System scheduling. Enter the scheduling difference (impact) on the Scheduling Impact Analysis form.

3. PROVISIONING AND POL REQUIREMENTS - To determine Provisioning and POL requirements of the New System/Equipment impact on Existing and Planned systems, proceed as follows:

A. Use the New System/Equipment Provisioning Documentation identified and accumulated in Process 402.2.1.1 as the base documentation for Impact analysis. Add two(2) columns to each listing of Provisioning items and identify as follows:

IMPACT ON EXISTING SYSTEM (+ / -)				IMPACT ON PLANNED SYSTEM (+ / -)			
ORG	DS/INT	GS/INT	DEPOT	ORG	DS/INT	GS/INT	DEPOT

B. Compare the items listed in the New System/Equipment Provisioning documentation with comparable Existing System/Equipment Provisioning documentation and Planned Weapon System Provisioning documentation. Calculate the Provisioning item differences between the New & Existing System/Equipment and the New & Planned System for each level of maintenance. Enter the difference (impact) in the applicable Impact columns attached to the New System/Equipment Provisioning Documentation.

C. Identify each New System/Equipment Provisioning document with added Impact data on form entitled "PROVISIONING REQUIREMENT IMPACT ANALYSIS DOCUMENTATION".

D. Transpose the New System/Equipment POL information on form entitled "NEW SYSTEM/EQUIPMENT PETROLEUM -OIL - LUBRICANT REQUIREMENTS" to form entitled "PETROLEUM - OIL - LUBRICANT REQUIREMENT IMPACT ANALYSIS".

Compare the Existing System/Equipment POL requirements and the Planned Weapon System POL requirements with the New System/Equipment requirements. Calculate the difference between the New and Existing system POL requirements and the New and the Planned Weapon System POL requirements. Enter the POL requirement difference (impact) on the PETROLEUM - OIL - LUBRICANT REQUIREMENT IMPACT ANALYSIS form.

4. INVENTORY FACTORS - The impact of the New System/ Equipment inventory requirements on the Existing System/Equipment and any Planned Weapon System are determined as follows:

A. If available, obtain from Process 402.2.1.1 the four(4) inventory control lists indicated below, representing the Existing System/Equipment, and the Planned Weapon System:

(1) Combat Authorized Stockage List
(2) Prescribed Load List
(3) The Wholesale Stockage Level
(4) The Retail Stockage Level

NOTE: Should the above lists not be available for the New System/Equipment skip paragraphs B&C, below, and proceed to paragraph D.

B. On the four(4) lists representing the New System/Equipment, add two(2) columns alongside each listing of items and identify as follows:

IMPACT ON EXISTING SYSTEM		IMPACT ON PLANNED SYSTEM	
QTY (+/-)	NEW ITEM (Y - N)	QTY (+/-)	NEW ITEM (Y - N)

Compare the entries on the four(4) New System/Equipment lists with the entries on the Existing System/Equipment and Planned Weapon System lists. Calculate the differences in inventory requirements between the New & Existing System/Equipment and the New & Planned Weapon System. Enter the difference (impact) in the applicable Impact columns attached to the New System/Equipment data.

C. Identify each New System/Equipment list having added Impact columns on form entitled "INVENTORY IMPACT ANALYSIS DOCUMENT LIST."

D. If the four(4) inventory control lists mentioned in paragraph A, above, are not available for the New System/Equipment, then proceed as follows:

(1) Obtain the provisioning documentation developed in Process 402.2.1.1 having the "DOC AFFECTED" column added and completed.
(2) On the provisioning documentation representing the New System/Equipment add the two(2) impact columns along side the "DOC AFFECTED" column as shown in paragraph 4.B, above.
(3) Compare the entries on the New System/Equipment documentation with the entries on the Existing System/Equipment and Planned Weapon System documentation, Calculate the differences in inventory requirements and enter these differences (impact) in the applicable Impact columns on the New System/Equipment documentation.
(4) Identify each document used in this inventory identification process on form entitled "INVENTORY FACTOR SOURCE DOCUMENTATION LIST".
(5) Identify each document containing the Impact Columns on form entitled "INVENTORY IMPACT ANALYSIS DOCUMENT LIST".

E. Package each set of Inventory Factor documentation, all source data and completed forms and ready for further processing and analysis.

5. ATE AVAILABILITY & CAPABILITY - Obtain the completed ATE forms from the sources indicated below and perform the following Impact Analysis:

A. From Process 402.2.1.1 obtain completed form entitled "NEW SYSTEM/EQUIPMENT ATE REQUIREMENTS AND CAPABILITIES".

B. From Process 402.2.1.2 obtain completed form entitled "EXISTING SYSTEM/EQUIPMENT ATE REQUIREMENTS AND CAPABILITIES".

C. From Process 402.2.1.3 obtain completed form entitled "PLANNED WEAPON SYSTEM ATE REQUIREMENTS AND CAPABILITIES".

D. Review the content of the completed form mentioned above, calculate the differences between the New System/Equipment ATE Requirements and the Existing System/Equipment as well as any Planned Weapon System ATE requirement. Indicate the differences (impact) on form entitled "ATE AVAILABILITY & CAPABILITY IMPACT ANALYSIS".

E. Accumulate the background data and the complete analysis forms, package, and ready for further processing and analysis.

6. MANPOWER & PERSONNEL - Obtain the Manpower & Personnel forms from the sources indicated below and perform the following Impact Analysis:

A. From Process 402.2.1.1, obtain completed form entitled "NEW SYSTEM/EQUIPMENT MANPOWER AND PERSONNEL REQUIREMENTS".

B. From Process 402.2.1.2, obtain completed form entitled "EXISTING SYSTEM/EQUIPMENT MANPOWER AND PERSONNEL REQUIREMENTS".

C. Form Process 402.2.1.3, obtain completed form entitled "PLANNED WEAPON SYSTEM MANPOWER AND PERSONNEL REQUIREMENTS".

D. Review the content of the completed forms mentioned above, calculate the differences between the New System/Equipment Manpower and Personnel requirements and the Existing System/Equipment, as well as the Planned Weapon System Manpower and Personnel requirement. Indicate the differences (impact) on form entitled "MANPOWER AND PERSONNEL IMPACT ANALYSIS".

E. Accumulate the background data and the completed Analysis forms, package and ready it for further processing and analysis.

7. TRAINING PROGRAMS AND REQUIREMENTS - Obtain the following Training Program and Requirement forms and perform an Impact Analysis as indicated below:

A. From Processes 402.2.1.1, 402.2.1.2 and 402.2.1.3, obtain the following completed forms:

(1) New System/Equipment Training Personnel Requirements.
Existing System/Equipment Training Personnel Requirements.
Planned Weapon System Training Personnel Requirements.

(2) New System/Equipment Training Materials, Aids, & Devices.
Existing System/Equipment Training Materials, Aids, & Devices.
Planned Weapon System Training Materials, Aids, & Devices.

(3) New System/Equipment Training Equipment, Support & Test Equipment & Training Ammunition. Existing System/Equipment Training Equipment, Support & Test Equipment & Training Ammunition. Planned Weapon System Training Equipment, Support & Test Equipment & Training Ammunition.

B. Review the content of each set of completed forms, calculate the differences (impact) between New & Existing System/Equipment and New & Planned Weapon System requirements. Indicate differences on forms entitled:

"TRAINING PERSONNEL REQUIREMENT IMPACT ANALYSIS" "TRAINING MATERIALS, AIDS & DEVICES IMPACT ANALYSIS" "TRAINING EQUIPMENT, SUPPORT & TEST EQUIPMENT & TRAINING AMMUNITION IMPACT ANALYSIS"

C. Accumulate the background data and the completed analysis forms, package and ready it for further processing and analysis.

8. TRANSPORTATION SYSTEMS - From Processes 402.2.1.1, 402.2.1.2 and 402.2.1.3 obtain the following competed forms and perform an impact analysis as indicated below:

A. From each of the above mentioned three (3) Processes obtain form entitled:

New System/Equipment Transport Requirements (TOE DOC.)
Existing System/Equipment Transport Requirements (TOE DOC.)
Planned Weapon System Transport Requirements (TOE DOC.)

If the above is not available, obtain the following forms:

New System/Equipment Transportation System Requirements Data.
Existing System/Equipment Transportation System Requirements Data.
Planned Weapon System Transportation System Requirements Data.

B. Review the set of completed forms, calculate the differences between the New & Existing System/ Equipment and the New & Planned Weapon System requirements. Indicate the differences (impact) on form entitled "TRANSPORTATION SYSTEM IMPACT ANALYSIS".

C. Accumulate the background data and the completed analysis forms, package and ready for further processing and analysis.

The following references may be useful:

AR 700-127, INTEGRATED LOGISTIC SUPPORT
DA PAM 700-28, INTEGRATED LOGISTIC SUPPORT PROGRAM ASSESSMENT, ISSUES, AND CRITERIA
AMC/TRADOC PAM 70-2, MATERIAL ACQUISITION HANDBOOK MIL-STD-1388-2A, LOGISTIC SUPPORT ANALYSIS RECORD

ANALYSIS OF ILS REQUIREMENT DATA
DEPOT WORKLOAD IMPACT ANALYSIS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

DEPOT WORKLOAD IMPACT ANALYSIS						
NEW SYS/EQUIP MANPOWER		IMPACT ON		NEW SYS/EQUIP ANNUAL MANHOURS	IMPACT ON	
SKILL SPECIALTY CODE	QTY REQD	EXISTING SYSTEM (+/-)	PLANNED SYSTEM (+/-)	(PER SKILL SPECIALTY CODE)	EXISTING SYSTEM (+/-)	PLANNED SYSTEM (+/-)

ANALYSIS OF ILS REQUIREMENTS DATA
SCHEDULING IMPACT ANALYSIS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

SCHEDULING IMPACT ANALYSIS (PER ANNUM BASIS)			
CATEGORY	NEW SYS/EQUIP REQUIREMENT	IMPACT ON EXISTING SYS. (+/-)	IMPACT ON PLANNED SYS. (+/-)
QTY SCHED. MAINT. ACTIONS:			
QTY UNSCHED. MAINT. ACTIONS:			
QTY SCHED. REPAIR ACTIONS:			
QTY UNSCHED. REPAIR ACTIONS:			
QTY SCHED. O/V ACTIONS:			
QTY UNSCHED. O/V ACTIONS:			

ANALYSIS OF ILS REQUIREMENTS DATA
PROVISIONING REQUIREMENT IMPACT ANALYSIS DOCUMENTATION

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

PROVISIONING REQUIREMENT IMPACT ANALYSIS DOCUMENTATION
RELATED INFORMATION
DOCUMENT TITLE:_____
LOCATION:_____
PREPARED BY:_____
COMMAND/OFFICE SYMBOL:_____
DATE:_____
VERSION:_____

ANALYSIS OF ILS REQUIREMENT DATA
POL REQUIREMENTS IMPACT ANALYSIS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

PETROLEUM - OIL - LUBRICANT REQUIREMENT IMPACT ANALYSIS							
NAME OR TYPE	NEW SYSTEM/EQUIP QTY U.S. GAL		IMPACT ON EXISTING SYSTEM (+ / - U.S. GAL.)		IMPACT ON PLANNED SYSTEM (+ / - U.S. GAL.)		REMARKS
	NON-RECURRING	ANNUAL RECURRING	NON-RECURRING	ANNUAL RECURRING	NON-RECURRING	ANNUAL RECURRING	

ANALYSIS OF ILS REQUIREMENTS DATA
INVENTORY IMPACT ANALYSIS DOCUMENTATION LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

INVENTORY IMPACT ANALYSIS DOCUMENT LIST
RELATED INFORMATION
DOCUMENT TITLE:_____
LOCATION:_____
PREPARED BY:_____
COMMAND/OFFICE SYMBOL:_____
DATE:_____
VERSION:_____

ANALYSIS OF ILS REQUIREMENT DATA
INVENTORY FACTOR SOURCE DOCUMENT LIST

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

INVENTORY FACTOR SOURCE DOCUMENT LIST						
ITEM NO.	DOCUMENT NAME	DOCUMENT NO.	ISSUE DATE	REV LTR	REV DATE	REMARKS

ANALYSIS OF ILS REQUIREMENT DATA
ATE AVAILABILITY & CAPABILITY IMPACT ANALYSIS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

ATE AVAILABLITY & CAPABILITY IMPACT ANALYSIS									
				IMPACT ON EXISTING SYSTEM/EQUIPMENT			IMPACT ON PLANNED WEAPON SYSTEM		
				MAINT LEVEL			MAINT LEVEL		
ITEM NO.	NAME OR TYPE	FSCM	PART NO.	O-I-D	QTY (+/-)	NEW ITEM (Y-N)	O-I-D	QTY (+/-)	NEW ITEM (Y-N)

ANALYSIS OF ILS REQUIREMENT DATA
MANPOWER AND PERSONNEL IMPACT ANALYSIS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

MANPOWER AND PERSONNEL IMPACT ANALYSIS

NEW SYSTEM/EQUIP		IMPACT ON EXISTING SYSTEM					IMPACT ON PLANNED SYSTEM				
REQUIRED MOS/SSI/ ASI/SQI	CATEGORY GRADE IDENT	QTY OPER (+/-)	QTY ORG/ UNIT (+/-)	QTY INT/ DS (+/-)	QTY INT/ GS (+/-)	QTY DEPOT (+/-)	QTY OPER (+/-)	QTY ORG/ UNIT (+/-)	QTY INT/ DS (+/-)	QTY INT/ GS (+/-)	QTY DEPOT (+/-)

ANALYSIS OF ILS REQUIREMENT DATA
TRAINING PERSONNEL REQUIREMENTS IMPACT ANALYSIS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

TRAINING PERSONNEL REQUIREMENT IMPACT ANALYSIS

ITEM NO.	NEW SYSTEM/EQUIPMENT SKILL LEVEL MOS	CATEGORY	TOTAL QTY	EXISTING SYSTEM IMPACT INSTITUTE TRAIN OPER. (+/-)	SPTR. (+/-)	UNIT TRAINING INDIV. (+/-)	COLL. (+/-)	PLANNED SYSTEM IMPACT INSTITUTE TRAIN OPERATR. (+/-)	SPTR. (+/-)	UNIT TRAINING INDIV. (+/-)	COLL. (+/-)

ANALYSIS OF ILS REQUIREMENT DATA
TRAINING MATERIELS, AIDS, AND DEVICES IMPACT ANALYSIS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

TRAINING MATERIALS, AIDS, & DEVICES
IMPACT ANALYSIS

ITEM NO.	NEW SYSTEM/EQUIPMENT		TOTAL QTY REQD	EXISTING & PLANNED SYSTEM IMPACT							
				INSTITUTE TRAINING				UNIT TRAINING			
				OPERATOR		SUPPORTER		INDIVIDUAL		COLLECTIVE	
	ITEM NAME OR NOMENCLATURE	PART/DWG NO. OR FED. STOCK NO		EXIST (+/-)	PWS (+/-)	EXIST (+/-)	PWS (+/-)	EXIST (+/-)	PWS (+/-)	EXIST (+/-)	PWS (+/-)

DEFINITIONS: EXIST = EXISTING SYSTEM/EQUIPMENT
PWS = PLANNED WEAPON SYSTEM

ANALYSIS OF ILS REQUIREMENT DATA
TRAINING AMMUNITION IMPACT ANALYSIS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

TRAINING EQUIPMENT, SUPPORT & TEST EQUIPMENT AND
TRAINING AMMUNITION IMPACT ANALYSIS

	NEW SYSTEM/EQUIPMENT			EXISTING & PLANNED SYSTEM IMPACT							
ITEM NO.	ITEM NAME OR NOMENCLATURE	PART/DWG NO. OR FED. STOCK NO	TOTAL QTY REQD	INSTITUTE TRAINING				UNIT TRAINING			
				OPERATOR		SUPPORTER		INDIVIDUAL		COLLECTIVE	
				EXIST (+/-)	PWS (+/-)	EXIST (+/-)	PWS (+/-)	EXIST (+/-)	PWS (+/-)	EXIST (+/-)	PWS (+/-)

DEFINITIONS: EXIST = EXISTING SYSTEM/EQUIPMENT
PWS = PLANNED WEAPON SYSTEM

ANALYSIS OF ILS REQUIREMENT DATA
TRANSPORTATION SYSTEM IMPACT ANALYSIS

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

TRANSPORTATION SYSTEM IMPACT ANALYSIS						
	NEW SYSTEM/EQUIPMENT					
ITEM NO.	ITEM NAME	PART/DWG NO.	TOTAL QTY	EXISTING SYSTEM IMPACT (+/-)	PLANNED SYSTEM IMPACT (+/-)	REMARKS

PROCESS 402.2.1.7 - RECOMMENDED SUPPORT CHANGES TO EXISTING/ PLANNED SYSTEM/EQUIPMENT

PURPOSE:

To provide recommendations regarding possible changes that could prove beneficial when selected portions of the New System/Equipment support requirements are incorporated or applied to the Existing System/Equipment and Planned Weapon System support system.

PROCEDURE:

NOTE: The performance of the following procedures are intended for all Existing/System/Equipment or Planned Weapon Systems that could benefit from the New System/Equipment new support item requirements or new technology requirements.

1. Review the impact analysis forms developed in Process 402.2.1.6 and determine the following:

   NOTE: Complete form entitled "RECOMMENDED SUPPORT SYSTEM CHANGES FOR EXISTING & PLANNED SYSTEM/EQUIPMENT" when New System/Equipment support requirements can be integrated within Existing System/Equipment and/or Planned Weapon Systems.

   A. The feasibility of integrating, either partially or in whole, within the Existing System/Equipment or the Planned Weapon System the following:

      (1) Newly developed support technology
      (2) New support Equipment (including ATE)
      (3) New spare parts (Provisioning items) and new Petroleum-Oil-Lubricant (POL) fluids
      (4) New functional support items
      (5) New support concepts and techniques.

   B. Manpower & Personnel per annum manhour savings by integrating the New System/Equipment support items mentioned in subparagraph 1A, above, into the Existing System/Equipment and Planned Weapon System support concept.

   C. Impact, if any, of incorporating the New System/Equipment support items mentioned in subparagraph 1A, above, into the Existing System/Equipment and/or the Planned Weapon System on the following:

      (1) The twelve (12) elements of ILS outlined in Army Regulation AR 700-127.

(2) Reliability, Availability and Maintainability (RAM) of the System/Equipment.

D. Overall per annum cost savings by integrating the New System/Equipment support items mentioned in subparagraph 1A, above, into the Existing System/Equipment and/or the Planned Weapon System.

2. Upon completion of this effort, accumulate all background data, place completed forms on top and package for further processing and/or analysis.

The following references may be useful:

AMC/TRADOC Pam 70-2, Materiel Acquisition Handbook
AR 700-127, Integrated Logistic Support
DA Pam 700-28, Integrated Logistic Support Program Assessment & Criteria.

RECOMMENDED SUPPORT CHANGES TO EXISTING/PLANNED SYSTEM/EQUIPMENT

END ITEM NAME:
NOMENCLATURE:
PART NUMBER:

RECOMMENDED SUPPORT SYSTEM CHANGES FOR EXISTING & PLANNED SYSTEM/EQUIPMENT

NOTE: Repeat the following effort for each recommended change and for each Existing System or Planned Weapon System under consideration.

PROPOSED CHANGE

PROPOSED ITEM NAME/NOMENCLATURE:
PROPOSED ITEM PART NUMBER:
PROPOSED ITEM FEDERAL STOCK NUMBER:
PROPOSED ITEM DESCRIPTION:

IMPACT OF PROPOSED CHANGE

System Application (State Name, Nomenclature, P/N)
1. Existing System/Equipment:
2. Planned Weapon System:

Manhour Savings (Per Annum Basis)
1 Existing System/Equipment:
2. Planned Weapon System:

Impact Determination (Describe including Costs)
1. Existing System/Equipment:
2. Affected ILS Elements (Reference AR 700-127):
3. Affected TOE/MTOE/Other (Document Name, Number, Impact):
4. RAM Impact:

Planned Weapon System
1. Affected ILS Elements (Reference AR 700-127):
2. RAM Impact:

Total Cost Savings (LCC Basis)
1. Existing System/Equipment:
2. Planned Weapon System:

ANNEX D

LSA SUBTASK 402.2.1
VERT APPLICATION METHODOLOGY

VERT APPLICATION METHODOLOGY

BACKGROUND:

Venture Evaluation and Review Technique (VERT) was developed as a network analysis technique to facilitate management decision making. It allows a systematic planning and control of programs and enables managers to find solutions to real life managerial problems.

The terms of the APJ contract require the provision of batch files for each of the VERT networks associated with the various Data Flow Diagrams in the APJ 966 projects.

APJ has been successful in adopting a method for the creation of these networks using the existing EXCELERATOR software package and establishing a naming convention compatible with that used in the Data Flow Diagrams. To do this APJ has made use of the PC model of VERT. A Structured Analysis project was used for this purpose. The prototype VERT network structure was made for one top level and one lower level data flow diagram.

The PC model of VERT has certain limitations built into it. To overcome some of these limitations, certain conventions were used to create the input files. To maintain full generality a set of "dummy" default values were established. The model allows the user to alter the default values of time, cost, and performance to satisfy their specific requirements.

METHODOLOGY:

The basic symbols used to structure the network are:

(i) **SQUARES** - to indicate NODES. These are decision points in the project, or points beyond which the project cannot proceed unless certain criteria are met. There are two type of nodes, one which supports input operations and, the second type which supports output operations.

(ii) **LINES** - to indicate ARCS which are activities that have time, cost, and performance criteria associated with them.

In practice, however, both the arcs and nodes are similar, in that both have time, cost, and performance criteria associated with them. The arcs have a primary and a cumulative set of time, cost, and performance criteria whereas the nodes have only a single cumulative set.

(iii) **NAMING CONVENTIONS** - Efforts have been made to keep the naming convention as compatible as possible to the Data Flow Diagrams. The naming convention used is displayed below.

NODES - All nodes are prefixed with the letter **N**. The individual Nodes are identified by a number and a letter. The number refers to the number of the node within the diagram and the letter refers to the diagram number in the project. In the event that a node has been referenced in an earlier diagram they also carry the number of the node in the earlier diagram as a prefix to the individual node number.

N2.4A

N - All nodes are prefixed with the letter **N**
2 - Gives the number of the node it relates to in a higher level diagram or an earlier data flow diagram within the project. In this case it refers to node **N2** of the top level diagram.
4 - Gives the number of the node it relates to in a higher level diagram or an earlier data flow diagram within the project. In this case it refers to node **N2** of the top level diagram.
A - The nodes in each subsequent explosion are allotted an alphabetical suffix indication the number of the explosion diagram in the particular project. In this case it is the first lower level diagram within the project.

ARCS - All arcs are prefixed with either the letter **C** or **E**. The individual Arcs are identified by two numbers. The first number refers to the number of the arc within the diagram and the second number refers to the number of the diagram within the project. In the event that an arc has been referenced in an earlier diagram they also carry the number of the arc in the earlier diagram as a prefix to the individual arc number. The arcs which are identified by the letter **E** have direct reference to a process in the corresponding data flow diagram and as such are named the same as the process itself.

C - All arcs are prefixed with the letter C. In some cases, however, arcs carry a prefix of E. These particular arcs correspond to a process within the data flow diagram and are thus named the same as the process itself.

3.3- Gives the number of the arc it relates to in a higher level diagram or an earlier data flow diagram within the project. In this case it refers to arc number 3 in lower level diagram #3 within the project.

8.4- Indicates that this particular arc is the #8 arc in the #4 lower level diagram of the project.

BATCH FILES

INPUT FILES - The input file names are given the extension 2*.IN.

OUTPUT FILES - The simulation output files are given the extension *OU.

PRINT FILES - The print files have been given the extension *.PR.

(This would allow subsequent updates of the input files to be numbered as IN1..., OU1..., PR1... etc.)

DEFAULT SETTINGS:

Control Record:

(i) The output option selected is "0" which provides a detailed listing, and high level of summary information.

(ii) The input record listing option selected is "0" which prints all input records.

(iii) The composite terminal node output option selected is "16" which assumes family mode and intrafamily transfer of histogram data.

(iv) The number of interactions used are "10" in the demonstration model to facilitate operation in the debug mode if required.

(v) The composite node name and the network name are left as blanks.

(vi) In the run identification the name of the corresponding Data Flow Diagram is used as identification for the network description.

Arc Records:

(i) For each of the arcs the following records are provided:
(a) Master Arc Record
(b) Time Distribution Satellite
(c) Cost Distribution Satellite
(d) Performance Distribution Satellite

(ii) The Distribution Satellite Records are created to provide a uniform statistical distribution.

(iii) The default values used for the minimum and maximum in each criteria are:

TIME	10.0	10.0
COST	10.0	100.0
PERFORMANCE	10.0	50.0

Node Records:

(i) Input Logic - The input logic for the nodes are either "**INITIAL**" or "**AND**".

(ii) Output Logic - The output logic has been defaulted to "**AND**" or "**TERMINAL**".

(iii) The output option indicator and the storage option indicator are defaulted to read "0".

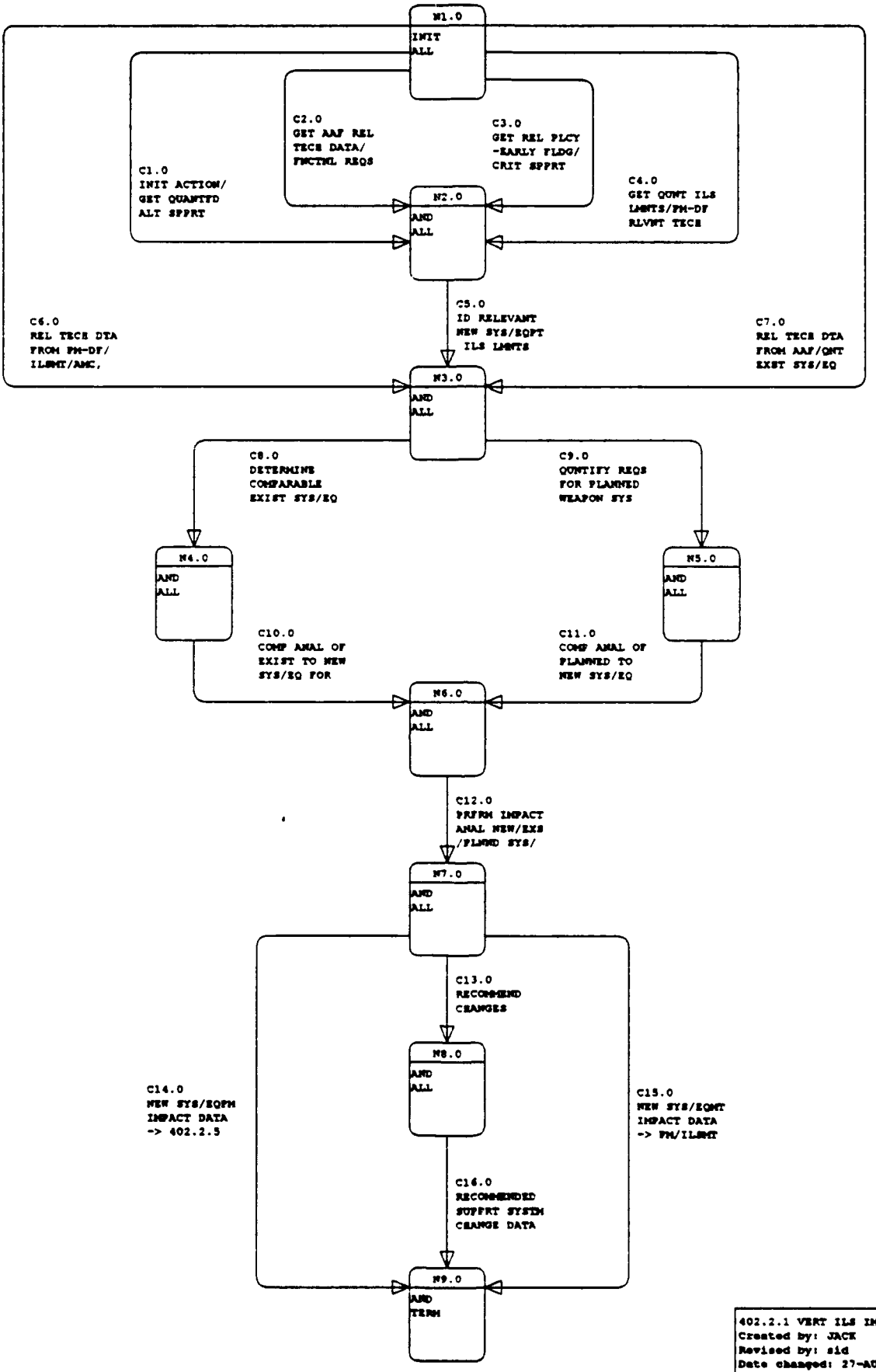
(iv) The node description has also been left blank.

(It is again noted that the user can change the default values to desired values as identified by the particular requirement and applications.)

DOCUMENTATION:

With every project report APJ will be providing the following documents relating to the VERT:

(i) A VERt network diagram corresponding to a particular data flow diagram.
(ii) A print out of the VERT network inputs for the particular data flow diagrams.
(iii) A floppy disc containing the sample input, print and the simulation output files for the default VERT network.


N1.0
INIT
ALL
C2.0
GET AAF REL
TECH DATA/
FNCTNL REQS
C3.0
GET REL PLCY
-EARLY FLDG/
CRIT SPPRT
C1.0
INIT ACTION/
GET QUANTTD
ALT SPPRT
C4.0
GET QUNT ILS
LMNTS/PM-DF
RLVNT TECH
N2.0
AND
ALL
C5.0
ID RELEVANT
NEW SYS/EQPT
ILS LMNTS
C6.0
REL TECH DTA
FROM PM-DF/
ILSMT/AMC,
C7.0
REL TECH DTA
FROM AAF/QNT
EXST SYS/EQ
N3.0
AND
ALL
C8.0
DETERMINE
COMPARABLE
EXIST SYS/EQ
C9.0
QUNTIFY REQS
FOR PLANNED
WEAPON SYS
N4.0
AND
ALL
N5.0
AND
ALL
C10.0
COMP ANAL OF
EXIST TO NEW
SYS/EQ FOR
C11.0
COMP ANAL OF
PLANNED TO
NEW SYS/EQ
N6.0
AND
ALL
C12.0
PRFRM IMPACT
ANAL NEW/EXS
/PLNND SYS/
N7.0
AND
ALL
C13.0
RECOMMEND
CHANGES
N8.0
AND
ALL
C14.0
NEW SYS/EQPM
IMPACT DATA
-> 402.2.5
C15.0
NEW SYS/EQMT
IMPACT DATA
-> PM/ILSMT
C16.0
RECOMMENDED
SUPPRT SYSTM
CHANGE DATA
N9.0
AND
TERM
402.2.1 VERT ILS IMPACT ANALYSIS
Created by: JACK
Revised by: sid
Date changed: 27-AUG-90

```
NEW NETWORK
          1        2        3        4        5        6        7        8
12345678901234567890123456789012345678901234567890123456789012345678901234567890
 1. 0016  10                NEW SYSTEM/EQ IMPACT ON EXSTG/PLNND SYSTEM/EQUIP
          +        +        +        +        +        +        +        +
 2. C1.0  N1.0    N2.0     1.0 INIT ACTION/GET QNTFD ALT SPPRT SYS TRADE-OFF ANAL
 3. C1.0  DTIME 1         2      10.0     20.0
 4. C1.0  DCOST 1         2      10.0    100.0
 5. C1.0  DPERF 1         2      10.0     50.0
          +        +        +        +        +        +        +        +
 6. C2.0  N1.0    N2.0     1.0 GET FNCTNL REQS FOR NEW SYS/EQ /AAF RLVNT TECH DATA
 7. C2.0  DTIME 1         2      10.0     20.0
 8. C2.0  DCOST 1         2      10.0    100.0
 9. C2.0  DPERF 1         2      10.0     50.0
          +        +        +        +        +        +        +        +
10. C3.0  N1.0    N2.0     1.0 GET POLICIES(EARLY FLDG)/CRIT SPPRT RSRCS NEW SYSEQ
11. C3.0  DTIME 1         2      10.0     20.0
12. C3.0  DCOST 1         2      10.0    100.0
13. C3.0  DPERF 1         2      10.0     50.0
          +        +        +        +        +        +        +        +
14. C4.0  N1.0    N2.0     1.0 GET QNTFD ILSLMNTS(LSAR)/PM-DF RLVNT TECH DATA
15. C4.0  DTIME 1         2      10.0     20.0
16. C4.0  DCOST 1         2      10.0    100.0
17. C4.0  DPERF 1         2      10.0     50.0
          +        +        +        +        +        +        +        +
18. C5.0  N2.0    N3.0     1.0 IDENTIFY RLVNT NEW SYS/EQ ILS ELEMENTS
19. C5.0  DTIME 1         2      10.0     20.0
20. C5.0  DCOST 1         2      10.0    100.0
21. C5.0  DPERF 1         2      10.0     50.0
          +        +        +        +        +        +        +        +
22. C6.0  N1.0    N3.0     1.0 GET RLVNT TECH DATA FROM PM/DF, PM/ILSMT, PM/AMC/TR
23. C6.0  DTIME 1         2      10.0     20.0
24. C6.0  DCOST 1         2      10.0    100.0
25. C6.0  DPERF 1         2      10.0     50.0
          +        +        +        +        +        +        +        +
26. C7.0  N1.0    N3.0     1.0 GET RLVNT TECH DATA(AAF)/QNTFD EXST/SYS/EQ ILS REQS
27. C7.0  DTIME 1         2      10.0     20.0
28. C7.0  DCOST 1         2      10.0    100.0
29. C7.0  DPERF 1         2      10.0     50.0
          +        +        +        +        +        +        +        +
30. C8.0  N3.0    N4.0     1.0 DTRMN COMPARABLE EXISTING SYS/EQ ILS REQS
31. C8.0  DTIME 1         2      10.0     20.0
32. C8.0  DCOST 1         2      10.0    100.0
33. C8.0  DPERF 1         2      10.0     50.0
          +        +        +        +        +        +        +        +
34. C9.0  N3.0    N5.0     1.0 QUANTIFY REQS FOR PLANNED WEAPONS SYSTEM
35. C9.0  DTIME 1         2      10.0     20.0
36. C9.0  DCOST 1         2      10.0    100.0
37. C9.0  DPERF 1         2      10.0     50.0
          +        +        +        +        +        +        +        +
38. C10.0 N4.0    N6.0     1.0 PERFRM COMPARATIVE ANAL OF NEW/EXSTG SYS/EQ REQS
39. C10.0 DTIME 1         2      10.0     20.0
40. C10.0 DCOST 1         2      10.0    100.0
41. C10.0 DPERF 1         2      10.0     50.0
          +        +        +        +        +        +        +        +
42. C11.0 N5.0    N6.0     1.0 PRFRM COMPARATIVE ANAL OF PLNND/NEW SYS/EQ REQS
43. C11.0 DTIME 1         2      10.0     20.0
44. C11.0 DCOST 1         2      10.0    100.0
45. C11.0 DPERF 1         2      10.0     50.0
          +        +        +        +        +        +        +        +
```

```
                1       2       3       4       5       6       7       8
       12345678901234567890123456789012345678901234567890123456789012345678901234567890
1        N E W   N E T W O R K                 PAGE  2
                1       2       3       4       5       6       7       8
       12345678901234567890123456789012345678901234567890123456789012345678901234567890
    46. C12.0   N6.0    N7.0     1.0 PRFRM IMPACT ANAL OF NEW/EXSTG/PLNND SYS/EQUIP
    47. C12.0   DTIME 1         2       10.0      20.0
    48. C12.0   DCOST 1         2       10.0     100.0
    49. C12.0   DPERF 1         2       10.0      50.0
                +       +       +       +       +       +       +       +
    50. C13.0   N7.0    N8.0     1.0 RECOMMEND CHANGES
    51. C13.0   DTIME 1         2       10.0      20.0
    52. C13.0   DCOST 1         2       10.0     100.0
    53. C13.0   DPERF 1         2       10.0      50.0
                +       +       +       +       +       +       +       +
    54. C14.0   N7.0    N9.0     1.0 SEND NEW SYS/EQ IMPACT DATA TO TASK 402.2.5
    55. C14.0   DTIME 1         2       10.0      20.0
    56. C14.0   DCOST 1         2       10.0     100.0
    57. C14.0   DPERF 1         2       10.0      50.0
                +       +       +       +       +       +       +       +
    58. C15.0   N7.0    N8.0     1.0 SEND  NEW IMPACT DATA TO PM ILSMT
    59. C15.0   DTIME 1         2       10.0      20.0
    60. C15.0   DCOST 1         2       10.0     100.0
    61. C15.0   DPERF 1         2       10.0      50.0
                +       +       +       +       +       +       +       +
    62. C16.0   N8.0    N9.0     1.0 SEND RECOMMENDED SUPPORT SYS CHANGE DATA->PM/ILSMT
    63. C16.0   DTIME 1         2       10.0      20.0
    64. C16.0   DCOST 1         2       10.0     100.0
    65. C16.0   DPERF 1         2       10.0      50.0
                +       +       +       +       +       +       +       +
    66. ENDARC
                +       +       +       +       +       +       +       +
    67. N1.0    1  2 0 0
                +       +       +       +       +       +       +       +
    68. N2.0    2  2 0 0
                +       +       +       +       +       +       +       +
    69. N3.0    2  2 0 0
                +       +       +       +       +       +       +       +
    70. N4.0    2  2 0 0
                +       +       +       +       +       +       +       +
    71. N5.0    2  2 0 0
                +       +       +       +       +       +       +       +
    72. N6.0    2  2 0 0
                +       +       +       +       +       +       +       +
    73. N7.0    2  2 0 0
                +       +       +       +       +       +       +       +
    74. N8.0    2  2 0 0
                +       +       +       +       +       +       +       +
    75. N9.0    2  1 0 0
                +       +       +       +       +       +       +       +
    76. ENDNODE
                1       2       3       4       5       6       7       8
       12345678901234567890123456789012345678901234567890123456789012345678901234567890
```

ANNEX E

STRUCTURED SYSTEMS ANALYSIS
Fundamentals

NOTE: Our presentation of Structured Analysis Fundamented with the associated figure is reproduced verbatim in each report

ANNEX E
STRUCTURED SYSTEMS ANALYSIS

Fundamentals

Structured Systems Analysis (SSA) has recently become an industry standard for generating Data Flow Diagrams (replacing "logic diagrams" or "flow charts") to aid in coordinating the functions to be performed by a computer program and its associated Inputs/Outputs (I/O). During the SSA, each set of "flow charts" can be checked by the potential user to assure that there is complete agreement on what is to be done by the program, and how it is to be accomplished. It also provides considerable flexibility for updating or changing the program.

Six basic elements (see figure 1) are used in SSA:

1. Process (PRC)
2. Data Flow (DAF)
3. Data Store (DAS)
4. External Entity (EXT)
5. Data Flow Diagram (DFD)
6. Data Dictionary (DCT)

PROCESS (Represented by a Circle):

A function or operation to be performed which can be explained by a set of instructions representing a single task, e.g., "calculate interest on a loan", "prepare a draft report". If the Process description is too complex to describe in a few steps, it may be necessary to develop a lower level description (see below).

DATA FLOW (Lines interconnecting Processes or I/Os):

Each function or Process cannot be a stand-alone in a complex network. To have any meaning in a program, each process must be initiated by a previous action and/or provided information on which to act. Furthermore, a Process must result in an output which is the input to the next logical Process. These inputs, outputs, or initiating actions are identified as Data Flows, and are represented by the Data Flow lines indicating its point of origin and the process to which it provides data.

DATA STORE (Represented by two parallel lines):

Although some Processes generate data used as input to a succeeding Process, there is often a need to "gather or collect" information from files in which it is stored. This information may come from an external source (such as a MIL-STD, Army regulation, historical experience files, etc.), or an internal source or file in which data is temporarily stored for use by succeeding processes. These Data Stores can be visualized as a "file cabinet", in which the data are stored for later retrieval).

EXTERNAL ENTITY (Represented by a Rectangle):

Each program or logical process must have an initiating action, a "point" of disposition of the results, and possible input guidance or instructions. Each of these have authorities, functions, or applications which are independent of the program Process (although required by the program Process). Thus, these activities, agencies, or facilities are considered "External Entities" to the program.

DATA FLOW DIAGRAM:

The general arrangement of the above can be readily seen. First, the circle or Process describes what has to be done; the interconnecting lines represent the Data Flows, together with the specific description of all I/Os. The Data Stores identify the source and/or file designation of a data base, and the External Entities represent those activities remote from the Process, which are the source of guidance or the recipients of the program. This combination of Processes, Data Flows, Data Stores, and External Entities constitutes a "Data Flow Diagram". The unique feature of the Data Flow Diagram (DFD) is that each process can be considered independently, permitting a change to be made in one Process without a major change in the overall program.

DATA DICTIONARY:

The Data Dictionary consists of a complete description of each of the basic elements. For the Process, it contains a step-by-step description of what has to be performed. The description of the Data Flow identifies the nomenclature of the data, a detailed description of its content, and its source. The Data Stores and External Entities are described, including possible location.

The Data Dictionary (a living document) begins with a description of the first Process and is continually built-up as the Data Flow Diagrams are expanded, detailed, and eventually completed.

APPROACH TO PERFORMING STRUCTURED SYSTEM ANALYSIS:

The best approach to Structured Systems Analysis is to assume that the program consists of a series of processes, each of which are to be assigned to an inexperienced analyst. Each analyst is to be walked through the assigned process of the Program, explaining step-by-step functions have to be performed or what actions have to be taken to accomplish the process. The analyst is also informed where the information is coming from (input Data Flow), what is to be generated by each process (output Data Flow), where the data base may to be found (Data Stores), and who to contact for guidance (External Entities).

The best way to initiate a SSA is to set down the point of origin of a program, its final goal(s), and the intermediate functions or actions needed to get from beginning to goal. Each step should be considered as a Process - some may be sequential and others parallel. Then, the steps needed to accomplish the Process should be described. If the description is complex and needs intermediate steps, the Process is then a candidate for an "explosion". That is, the top (or upper) level Process is considered as a "project" and its own Data Flow Diagram is prepared.

When writing the step-by-step procedures in the Process, certain elements of data (or information) must be made available for the procedure. Each element of data is considered as an input Data Flow, which is identified and described. The product (or result) of a Process is an output Data Flow element.

Each Data Flow to the Process must originate from:

1. an earlier Process
2. a Data Store (or file)
3. an External Entity.

These sources are also identified, described and put into the Data Dictionary. As soon as the last portion of the Data Flow Diagram has been described, the SSA is complete.

The structured Analysis phase is followed by Structured Design, then by programming and finally software test and validation. The organization of Structured Analysis and its relationship to Structured System Design is shown on Figure 2.

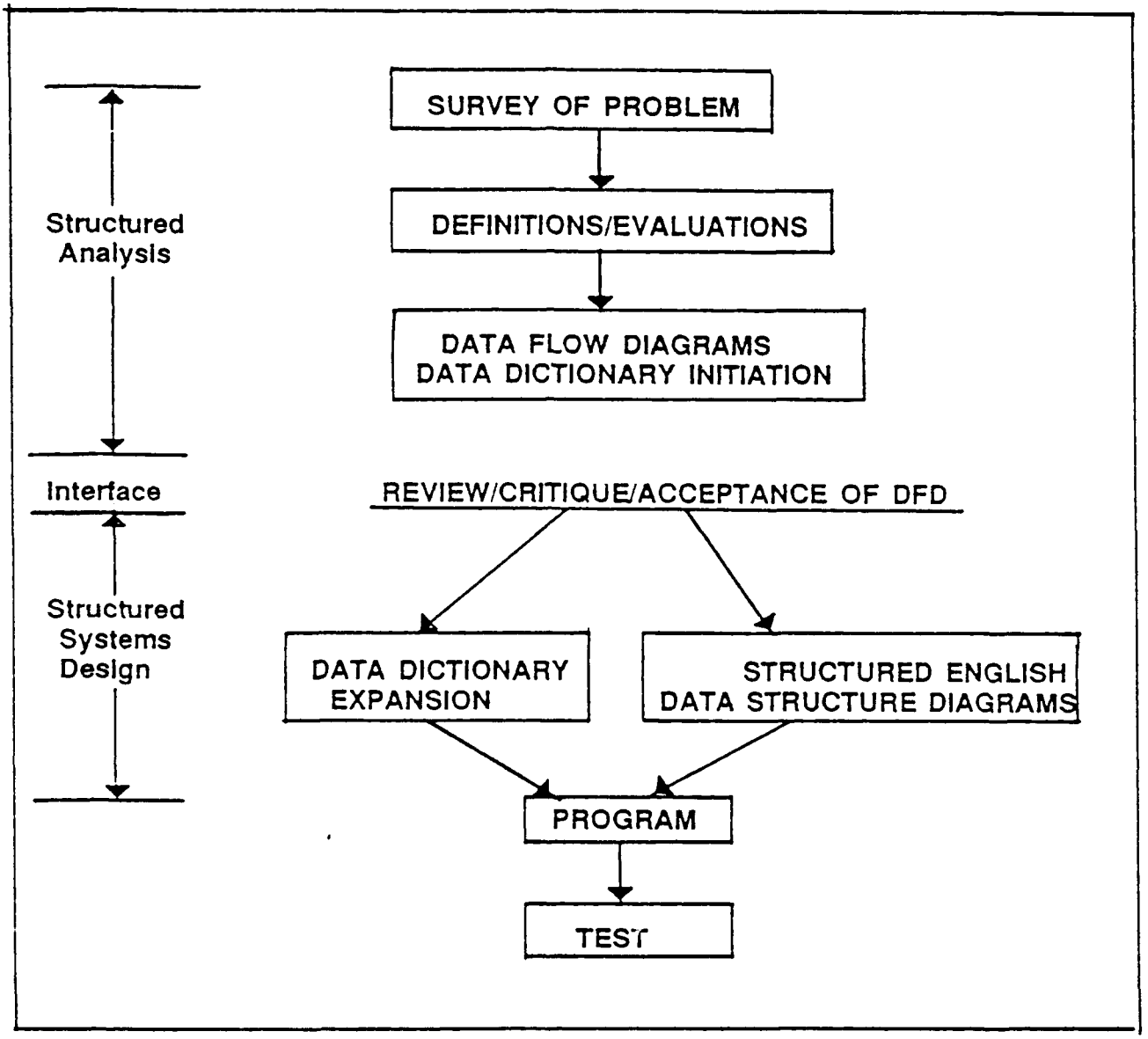


Figure 1. Structured Analysis & Structured Systems Design Organization

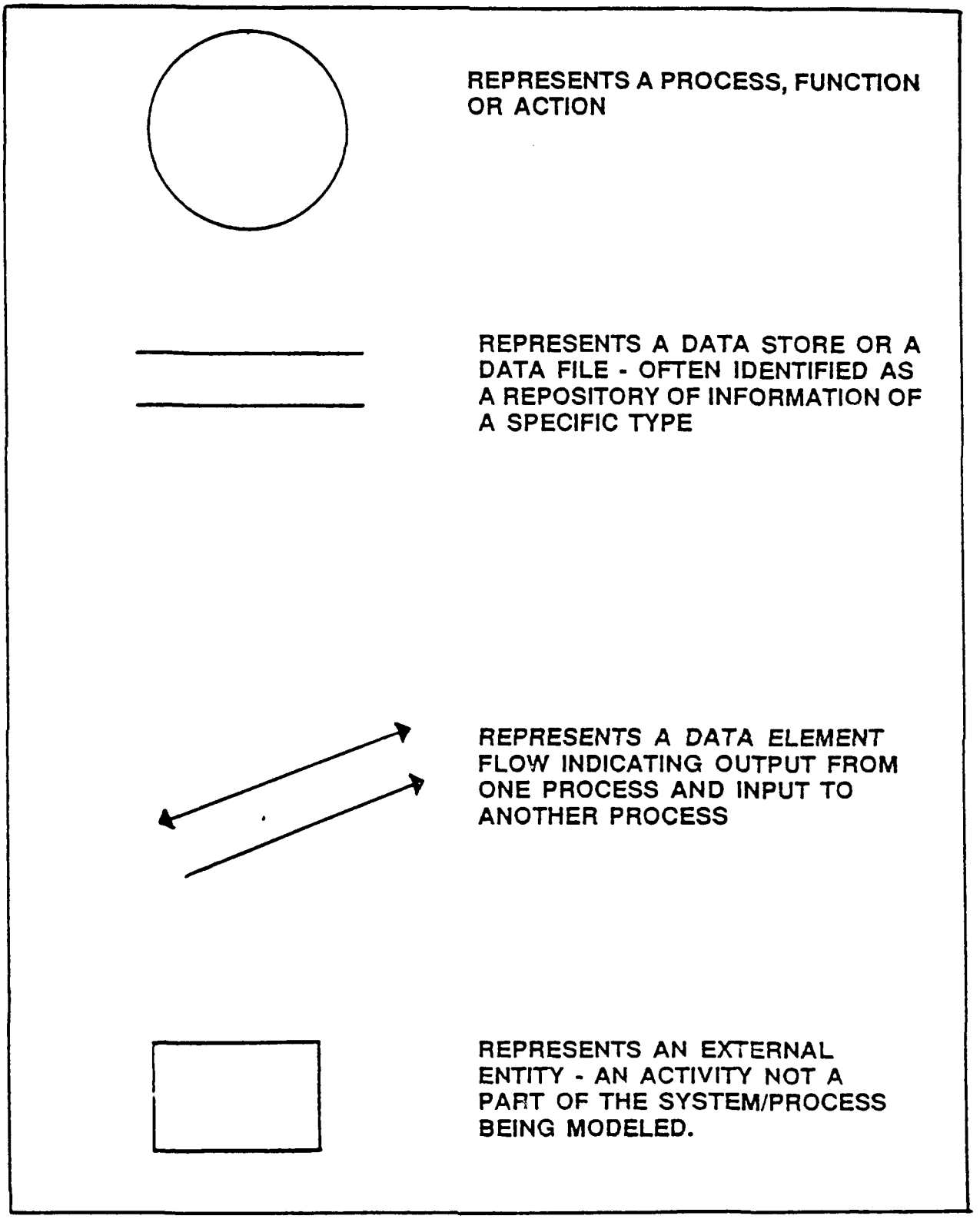


Figure 2. Standard DFD Symbol Definitions